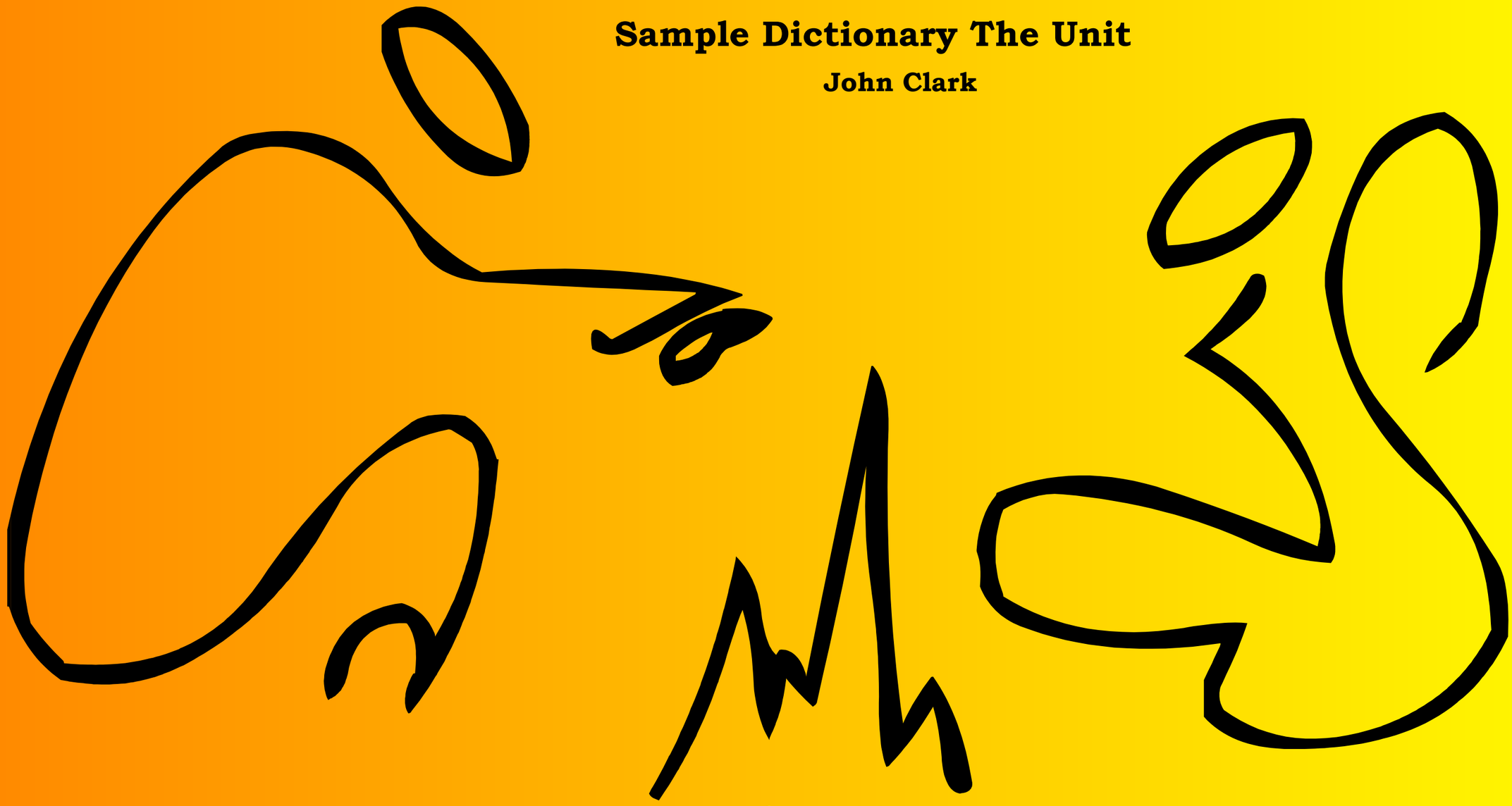
Basic Analog Grammar

Sample Dictionary The Unit

John Clark



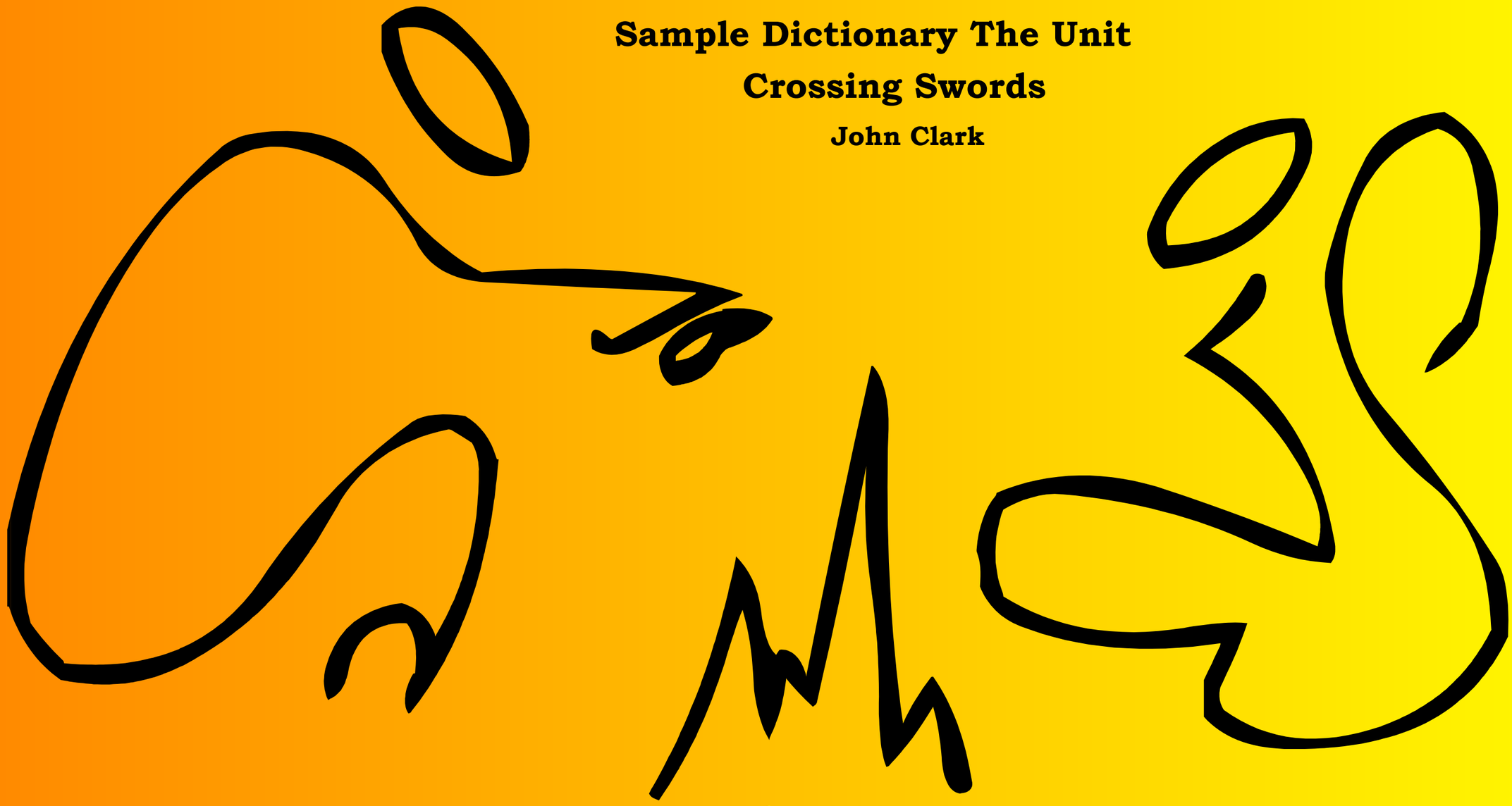
John 312

Basic Analog Grammar

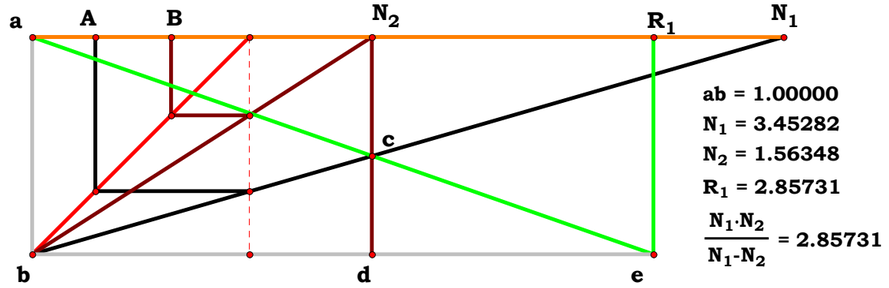
Sample Dictionary The Unit

Crossing Swords

John Clark



John 312



If we establish a simple convention of names, leaving out the fact that this convention imples a arbitrary method of division, we get a simple arithmetic result.

Given.

Unit. $ab := 1$ $N_1 := 3.45282$ $N_2 := 1.56348$

Descriptions.

$$cd := \frac{N_2}{N_1} \qquad de := \frac{N_2 \cdot cd}{1 - cd}$$

$$be := N_2 + de \qquad R := be$$

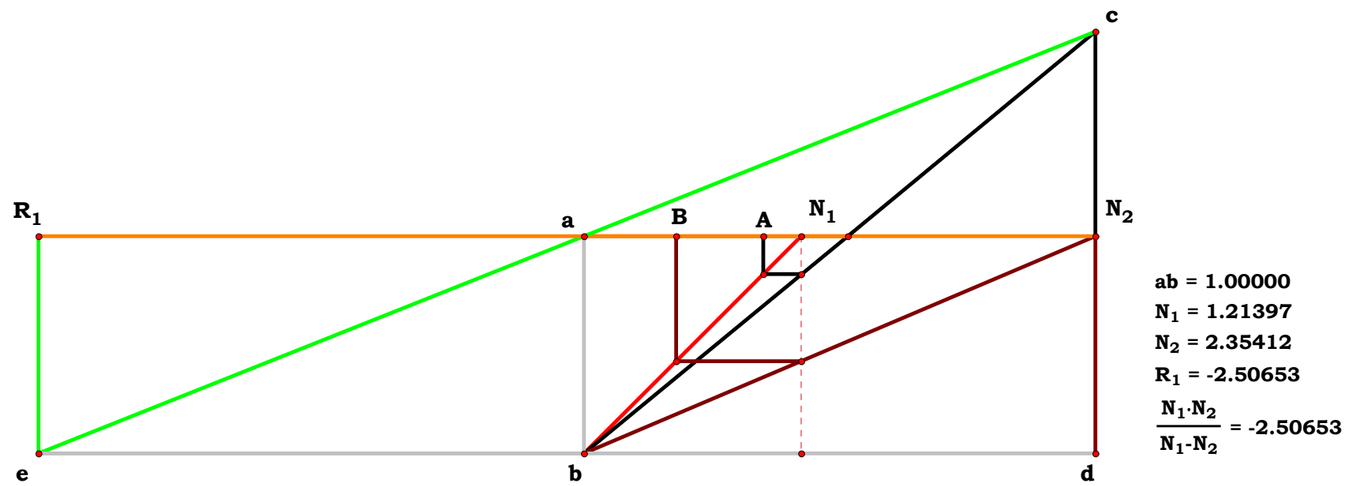
$R = 2.857302$

Definitions.

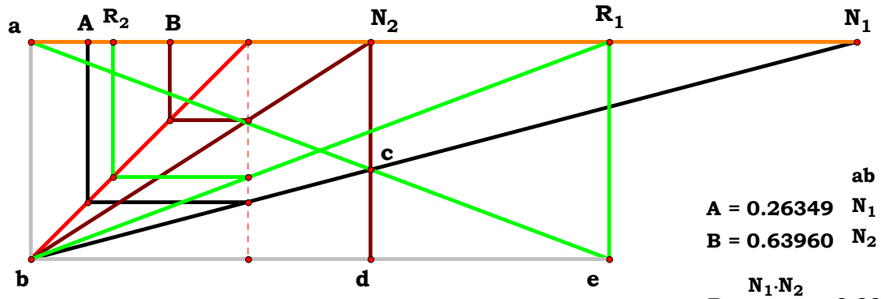
And this result will reduce to this definition.

$$R - \frac{N_1 \cdot N_2}{N_1 - N_2} = 0$$

But something is wrong. The more complex the equations become, every once in a while, we have to insert logical operators, and we accompany them with mythology. What can be wrong?



1CST1R0B



ab = 1.00000
A = 0.26349 N1 = 3.79518
B = 0.63960 N2 = 1.56348

$R_1 - \frac{N_1 \cdot N_2}{N_1 - N_2} = 0.00000$

$R_1 - \frac{1}{B-A} = 0.00000$

$\frac{1}{B-A} - \frac{N_1 \cdot N_2}{N_1 - N_2} = 0.00000$

$R_1 = 2.65883$ $R_2 = 0.37611$

$\frac{N_1 \cdot N_2}{N_1 - N_2} = 2.65883$ B-A = 0.37611

$\frac{1}{B-A} = 2.65883$ R_2-(B-A) = 0.00000

Given.

Unit. $ab := 1$

$N_1 := 3.79518 \quad N_2 := 1.56348$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2}$

Descriptions.

$cd := \frac{N_2}{N_1} \quad de := \frac{N_2 \cdot cd}{1 - cd}$

$be := N_2 + de \quad R_1 := be$

$R_1 = 2.65882 \quad R_2 := \frac{1}{R_1}$

Definitions.

We start with our original arithmetic result,

$$R_1 - \frac{N_1 \cdot N_2}{N_1 - N_2} = 0$$

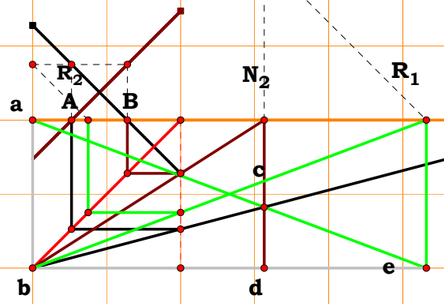
Transform the rest of our givens like such

$N_1 - \frac{1}{A} = 0 \quad N_2 - \frac{1}{B} = 0$

Making our substitutions we get a completely different equation where any value whatsoever can be plugged into N_u and the arithmetic result will not change, ever. So, in our first plate, we got a particular result, where here, we get a result that is apparently universal for any base system used in math.

$R_1 - \frac{1}{B - A} = 0 \quad R_2 - (B - A) = 0$

If, however, we remember that arithmetic depends upon complete induction and deduction of the unit, then the unit must always be preserved, or we can figure out that every grammar system depends on complete induction and deduction of a unit, or standard thing, we can then figure out how to do the math right.



$A = 0.26349$ $B = 0.63960$

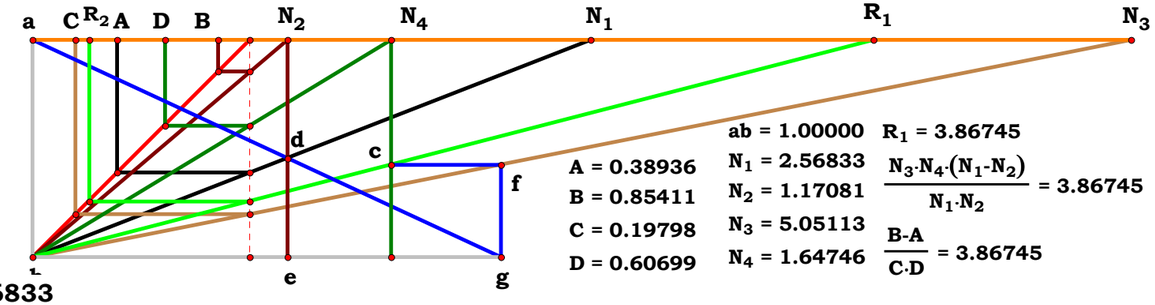
$ab = 1.00000$ $N_1 = 3.79518$ $N_2 = 1.56348$

$R_1 = 2.65883$ $\frac{N_1 \cdot N_2}{N_1 - N_2} = 2.65883$ $\frac{1}{B-A} = 2.65883$

$R_2 = 0.37611$ $B-A = 0.37611$ $R_2-(B-A) = 0.00000$

$R_1 - \frac{N_1 \cdot N_2}{N_1 - N_2} = 0.00000$ $R_1 - \frac{1}{B-A} = 0.00000$ $\frac{1}{B-A} - \frac{N_1 \cdot N_2}{N_1 - N_2} = 0.00000$

1CST1R1



Descriptions.

Unit. $ab := 1$ **Given.** $N_1 := 2.56833$

$N_2 := 1.17081$ $N_3 := 5.05113$ $N_4 := 1.64746$

$A := \frac{1}{N_1}$ $B := \frac{1}{N_2}$ $C := \frac{1}{N_3}$ $D := \frac{1}{N_4}$

$BE := N_2$

$bg := \frac{N_1 \cdot N_2}{N_1 - N_2}$ $fg := \frac{bg}{N_3}$

$R_1 := \frac{N_4}{fg}$ $R_1 = 3.867446$ $R_2 := \frac{1}{R_1}$

Definitions.

$$R_1 - \frac{N_3 \cdot N_4 \cdot (N_1 - N_2)}{N_1 \cdot N_2} = 0$$

$N_1 - \frac{1}{A} = 0$ $N_2 - \frac{1}{B} = 0$ $N_3 - \frac{1}{C} = 0$ $N_4 - \frac{1}{D} = 0$

$R_1 - \frac{(B - A)}{C \cdot D} = 0$ $R_2 - \frac{C \cdot D}{(B - A)} = 0$

$ab = 1.00000$ $R_1 = 3.86745$

$A = 0.38936$ $N_1 = 2.56833$ $\frac{N_3 \cdot N_4 \cdot (N_1 - N_2)}{N_1 \cdot N_2} = 3.86745$

$B = 0.85411$ $N_2 = 1.17081$

$C = 0.19798$ $N_3 = 5.05113$ $\frac{B-A}{C \cdot D} = 3.86745$

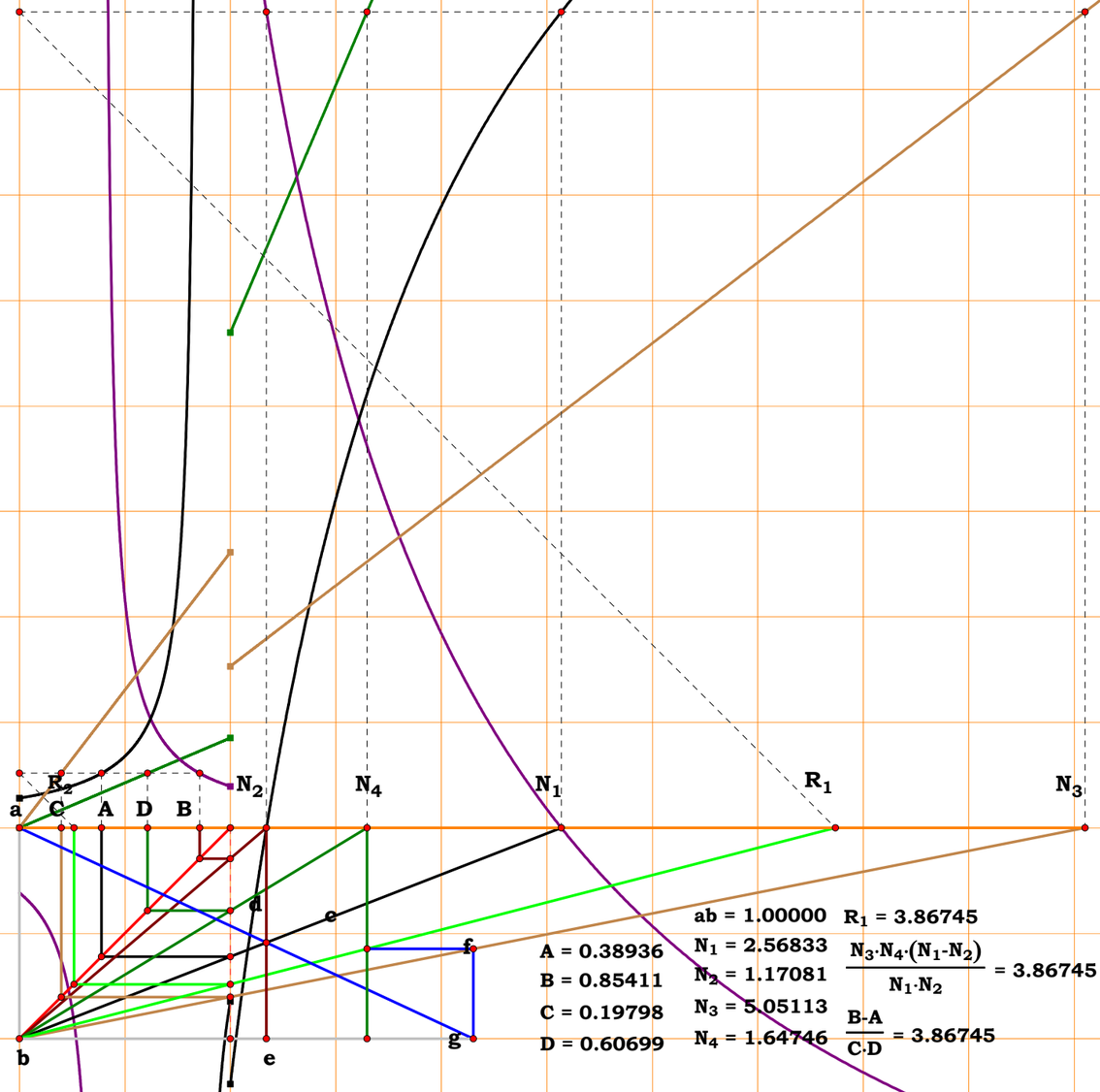
$D = 0.60699$ $N_4 = 1.64746$

$R_1 - \frac{N_3 \cdot N_4 \cdot (N_1 - N_2)}{N_1 \cdot N_2} = 0.00000$ $R_2 = 0.25857$

$\frac{C \cdot D}{B-A} - R_2 = 0.00000$

$R_1 - \frac{B-A}{C \cdot D} = 0.00000$

$\frac{B-A}{C \cdot D} - \frac{N_3 \cdot N_4 \cdot (N_1 - N_2)}{N_1 \cdot N_2} = 0.00000$



A = 0.38936
B = 0.85411
C = 0.19798
D = 0.60699

ab = 1.00000
N_1 = 2.56833
N_2 = 1.17081
N_3 = 5.05113
N_4 = 1.64746

R_1 = 3.86745

$$\frac{N_3 \cdot N_4 \cdot (N_1 - N_2)}{N_1 \cdot N_2} = 3.86745$$

$$\frac{B-A}{C \cdot D} = 3.86745$$

$$R_1 - \frac{N_3 \cdot N_4 \cdot (N_1 - N_2)}{N_1 \cdot N_2} = 0.00000$$

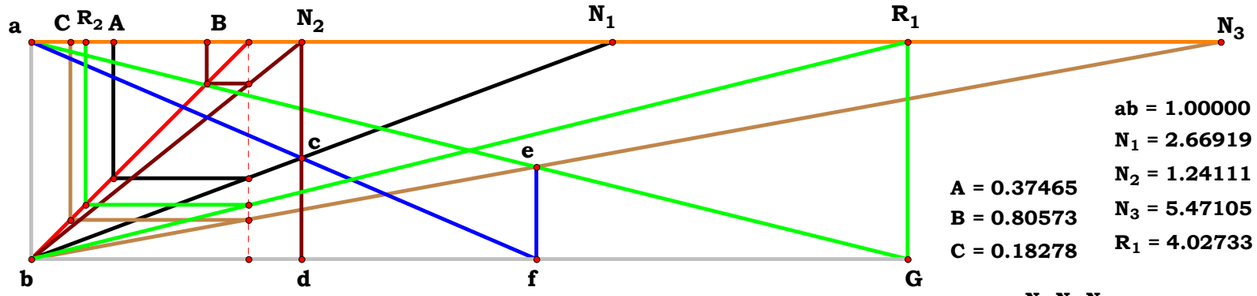
$$R_1 - \frac{B-A}{C \cdot D} = 0.00000$$

$$\frac{B-A}{C \cdot D} - \frac{N_3 \cdot N_4 \cdot (N_1 - N_2)}{N_1 \cdot N_2} = 0.00000$$

R_2 = 0.25857

$$\frac{C \cdot D}{B-A} - R_2 = 0.00000$$

1CST1R3



Given.

Unit. $ab := 1$ $N_1 := 2.66919$

$N_2 := 1.24111$ $N_3 := 5.47105$

Descriptions.

$A := \frac{1}{N_1}$ $B := \frac{1}{N_2}$ $C := \frac{1}{N_3}$

$bf := \frac{N_1 \cdot N_2}{N_1 - N_2}$ $ef := \frac{bf}{N_3}$

$R_1 := \frac{bf}{1 - ef}$ $R_1 = 4.027312$ $R_2 := \frac{1}{R_1}$

Definitions.

$$R_1 - \frac{N_1 \cdot N_2 \cdot N_3}{N_1 \cdot N_3 - N_1 \cdot N_2 - N_2 \cdot N_3} = 0$$

$N_1 - \frac{1}{A} = 0$ $N_2 - \frac{1}{B} = 0$ $N_3 - \frac{1}{C} = 0$

$R_1 - \frac{1}{B - A - C} = 0$ $R_2 - (B - A - C) = 0$

$ab = 1.00000$

$N_1 = 2.66919$

$N_2 = 1.24111$

$N_3 = 5.47105$

$R_1 = 4.02733$

$A = 0.37465$

$B = 0.80573$

$C = 0.18278$

$R_1 = 4.02733$

$$\frac{N_1 \cdot N_2 \cdot N_3}{N_1 \cdot N_3 - N_1 \cdot N_2 - N_2 \cdot N_3} = 4.02733$$

$$\frac{1}{B-A-C} = 4.02733$$

$$R_1 - \frac{N_1 \cdot N_2 \cdot N_3}{N_1 \cdot N_3 - N_1 \cdot N_2 - N_2 \cdot N_3} = 0.00000$$

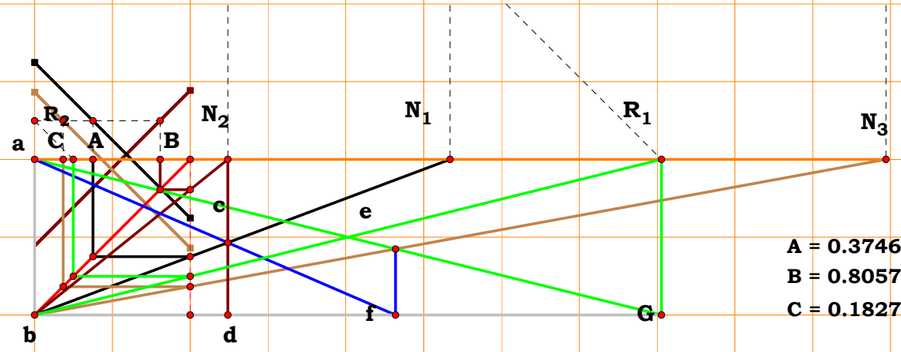
$$R_1 - \frac{1}{B-A-C} = 0.00000$$

$$\frac{1}{B-A-C} - \frac{N_1 \cdot N_2 \cdot N_3}{N_1 \cdot N_3 - N_1 \cdot N_2 - N_2 \cdot N_3} = 0.00000$$

$R_2 = 0.24830$

$B-A-C = 0.24830$

$R_2-(B-A-C) = 0.00000$



A = 0.37465
B = 0.80573
C = 0.18278

ab = 1.00000
N_1 = 2.66919
N_2 = 1.24111
N_3 = 5.47105
R_1 = 4.02733

$R_1 = 4.02733$

$$\frac{N_1 \cdot N_2 \cdot N_3}{N_1 \cdot N_3 - N_1 \cdot N_2 - N_2 \cdot N_3} = 4.02733$$

$$\frac{1}{B\text{-}A\text{-}C} = 4.02733$$

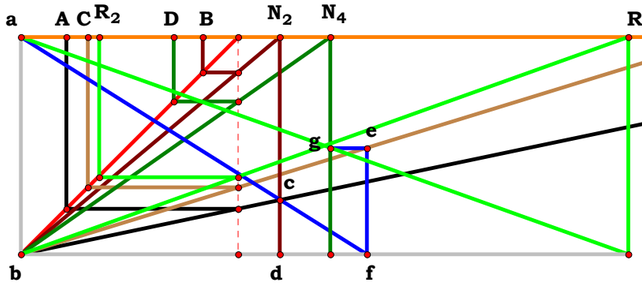
$$R_1 - \frac{N_1 \cdot N_2 \cdot N_3}{N_1 \cdot N_3 - N_1 \cdot N_2 - N_2 \cdot N_3} = 0.00000$$

$$R_1 - \frac{1}{B\text{-}A\text{-}C} = 0.00000$$

$$\frac{1}{B\text{-}A\text{-}C} - \frac{N_1 \cdot N_2 \cdot N_3}{N_1 \cdot N_3 - N_1 \cdot N_2 - N_2 \cdot N_3} = 0.00000$$

R_2 = 0.24830
B-A-C = 0.24830
R_2-(B-A-C) = 0.00000

1CST1R4



ab = 1.00000

A = 0.20973
B = 0.83889
C = 0.30831
D = 0.70262

$N_1 = 4.76800$
$N_2 = 1.19206$
$N_3 = 3.24347$
$N_4 = 1.42325$

$R_1 = 2.79091$

$$\frac{N_3 \cdot N_4 \cdot (N_2 - N_1)}{(N_1 \cdot N_2 - N_1 \cdot N_3) + N_2 \cdot N_3} = 2.79091$$

$$\frac{A-B}{D \cdot ((A-B)+C)} = 2.79091$$

$$R_1 - \frac{N_3 \cdot N_4 \cdot (N_2 - N_1)}{(N_1 \cdot N_2 - N_1 \cdot N_3) + N_2 \cdot N_3} = 0.00000$$

$$R_1 - \frac{A-B}{D \cdot ((A-B)+C)} = 0.00000$$

$$\frac{A-B}{D \cdot ((A-B)+C)} - \frac{N_3 \cdot N_4 \cdot (N_2 - N_1)}{(N_1 \cdot N_2 - N_1 \cdot N_3) + N_2 \cdot N_3} = 0.00000$$

$R_2 = 0.35831$

$$\frac{D \cdot ((A-B)+C)}{A-B} = 0.35831$$

$$R_2 - \frac{D \cdot ((A-B)+C)}{A-B} = 0.00000$$

Given.

Unit. $ab := 1$

$N_1 := 4.76800 \quad N_2 := 1.19206$

$N_3 := 3.24347 \quad N_4 := 1.42325$

$$A := \frac{1}{N_1} \quad B := \frac{1}{N_2} \quad C := \frac{1}{N_3} \quad D := \frac{1}{N_4}$$

Descriptions.

$$cd := \frac{N_2}{N_1} \quad bf := \frac{N_2}{1 - cd}$$

$$ef := \frac{bf}{N_3} \quad GN_4 := 1 - ef$$

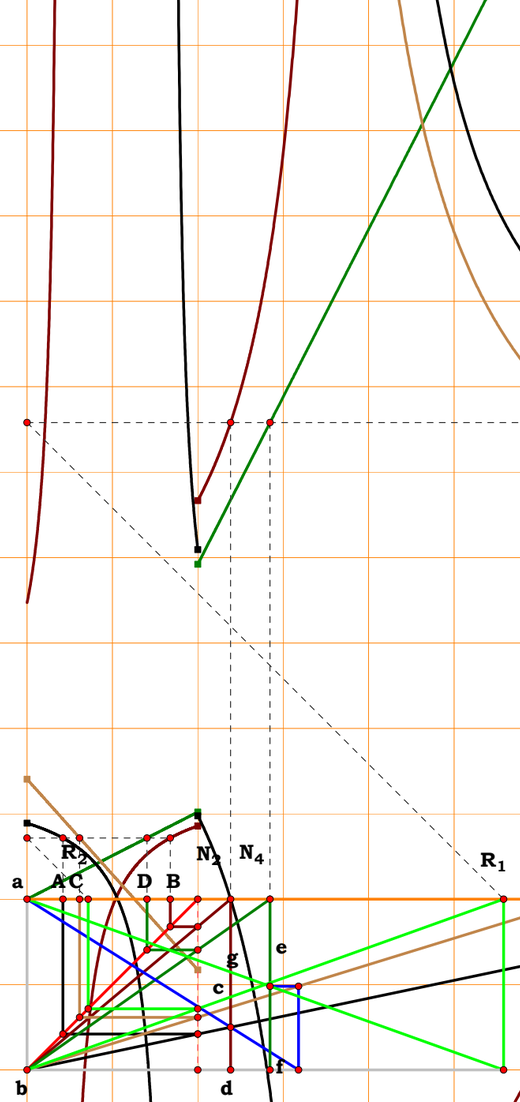
$$R_1 := \frac{N_4}{GN_4} \quad R_1 = 2.790922 \quad R_2 := \frac{1}{R_1}$$

Definitions.

$$R_1 - \frac{N_3 \cdot N_4 \cdot (N_2 - N_1)}{N_1 \cdot N_2 - N_1 \cdot N_3 + N_2 \cdot N_3} = 0$$

$$N_1 - \frac{1}{A} = 0 \quad N_2 - \frac{1}{B} = 0 \quad N_3 - \frac{1}{C} = 0 \quad N_4 - \frac{1}{D} = 0$$

$$R_1 - \frac{(A - B)}{D \cdot (A - B + C)} = 0 \quad R_1 - \frac{A - B}{D \cdot (A - B + C)} = 0$$



ab = 1.00000
N_1 = 4.76800
N_2 = 1.19206
N_3 = 3.24347
N_4 = 1.42325

A = 0.20973
B = 0.83889
C = 0.30831
D = 0.70262

$R_1 = 2.79091$

$$\frac{N_3 \cdot N_4 \cdot (N_2 - N_1)}{(N_1 \cdot N_2 - N_1 \cdot N_3) + N_2 \cdot N_3} = 2.79091$$

$$\frac{A-B}{D \cdot ((A-B)+C)} = 2.79091$$

$$R_1 - \frac{N_3 \cdot N_4 \cdot (N_2 - N_1)}{(N_1 \cdot N_2 - N_1 \cdot N_3) + N_2 \cdot N_3} = 0.00000$$

$$R_1 - \frac{A-B}{D \cdot ((A-B)+C)} = 0.00000$$

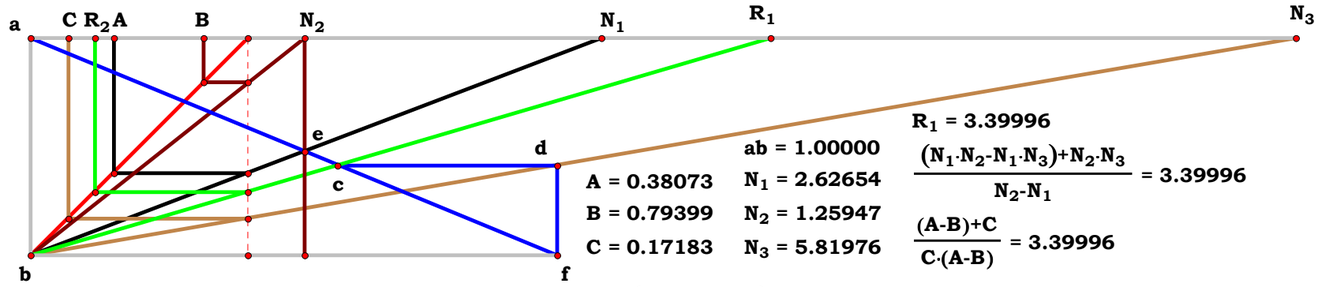
$$\frac{A-B}{D \cdot ((A-B)+C)} - \frac{N_3 \cdot N_4 \cdot (N_2 - N_1)}{(N_1 \cdot N_2 - N_1 \cdot N_3) + N_2 \cdot N_3} = 0.00000$$

$R_2 = 0.35831$

$$\frac{D \cdot ((A-B)+C)}{A-B} = 0.35831$$

$$R_2 - \frac{D \cdot ((A-B)+C)}{A-B} = 0.00000$$

1CST1R5



$ab = 1.00000$

$A = 0.38073$ $N_1 = 2.62654$

$B = 0.79399$ $N_2 = 1.25947$

$C = 0.17183$ $N_3 = 5.81976$

$R_1 = 3.39996$

$\frac{(N_1 \cdot N_2 - N_1 \cdot N_3) + N_2 \cdot N_3}{N_2 - N_1} = 3.39996$

$\frac{(A-B)+C}{C \cdot (A-B)} = 3.39996$

$R_1 - \frac{(N_1 \cdot N_2 - N_1 \cdot N_3) + N_2 \cdot N_3}{N_2 - N_1} = 0.00000$

$R_1 - \frac{(A-B)+C}{C \cdot (A-B)} = 0.00000$

$\frac{(A-B)+C}{C \cdot (A-B)} - \frac{(N_1 \cdot N_2 - N_1 \cdot N_3) + N_2 \cdot N_3}{N_2 - N_1} = 0.00000$

$R_2 = 0.29412$

$\frac{C \cdot (A-B)}{(A-B)+C} = 0.29412$

$R_2 - \frac{C \cdot (A-B)}{(A-B)+C} = 0.00000$

Given.

Unit. $ab := 1$ $N_1 := 2.62654$

$N_2 := 1.25947$ $N_3 := 5.81976$

$A := \frac{1}{N_1}$ $B := \frac{1}{N_2}$ $C := \frac{1}{N_3}$

Descriptions.

$eN_2 := 1 - \frac{N_2}{N_1}$ $bf := \frac{N_2}{eN_2}$

$df := \frac{bf}{N_3}$ $cd := bf \cdot df$

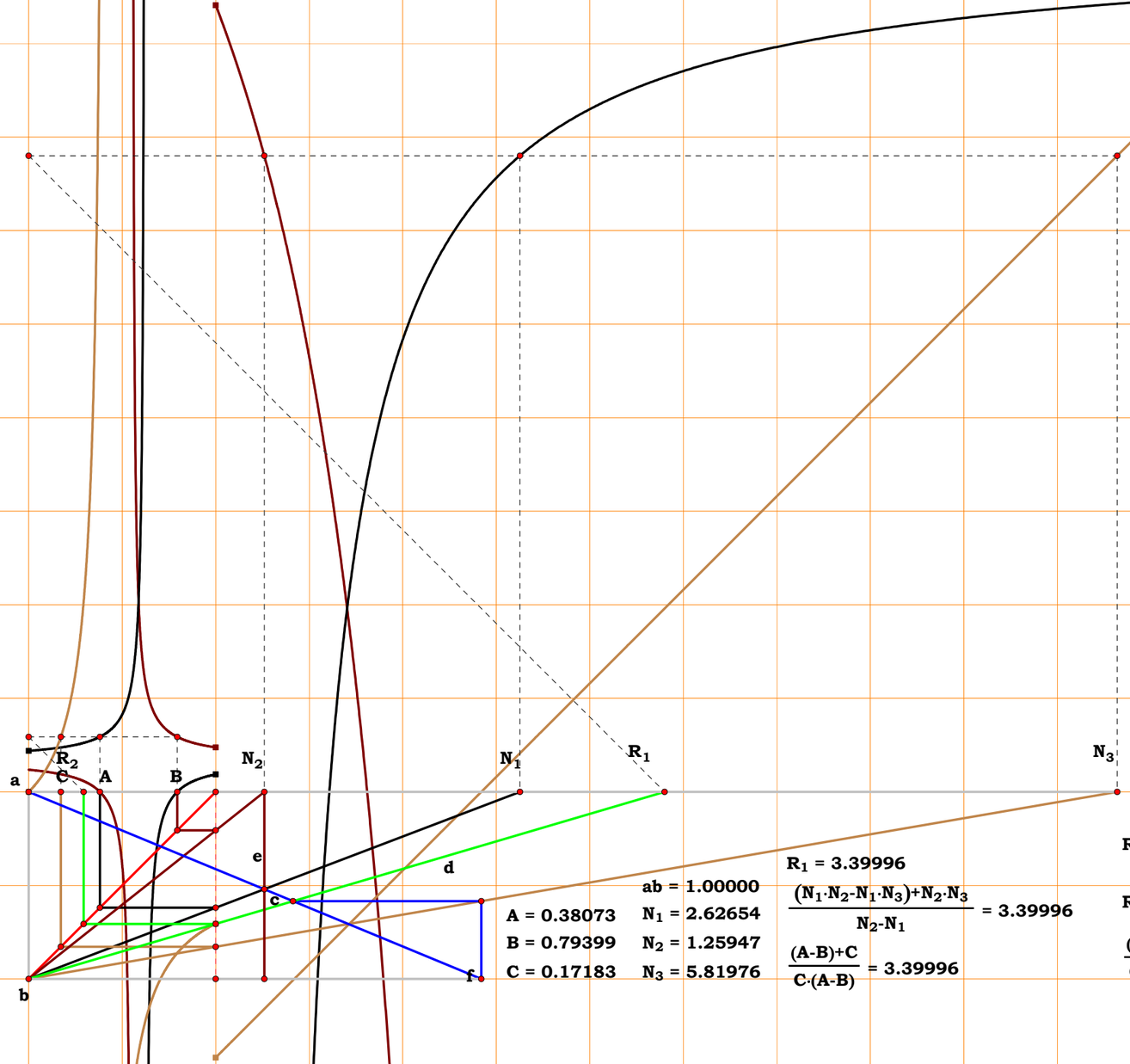
$R_1 := \frac{bf - cd}{df}$ $R_1 = 3.399951$ $R_2 := \frac{1}{R_1}$

Definitions.

$R_1 - \frac{N_1 \cdot N_2 - N_1 \cdot N_3 + N_2 \cdot N_3}{N_2 - N_1} = 0$

$N_1 - \frac{1}{A} = 0$ $N_2 - \frac{1}{B} = 0$ $N_3 - \frac{1}{C} = 0$

$R_1 - \frac{A - B + C}{C \cdot (A - B)} = 0$ $R_2 - \frac{C \cdot (A - B)}{A - B + C} = 0$



$A = 0.38073$
$B = 0.79399$
$C = 0.17183$

$ab = 1.00000$
$N_1 = 2.62654$
$N_2 = 1.25947$
$N_3 = 5.81976$

$R_1 = 3.39996$

$$\frac{(N_1 \cdot N_2 - N_1 \cdot N_3) + N_2 \cdot N_3}{N_2 - N_1} = 3.39996$$

$$\frac{(A-B)+C}{C \cdot (A-B)} = 3.39996$$

$$R_1 - \frac{(N_1 \cdot N_2 - N_1 \cdot N_3) + N_2 \cdot N_3}{N_2 - N_1} = 0.00000$$

$$R_1 - \frac{(A-B)+C}{C \cdot (A-B)} = 0.00000$$

$$\frac{(A-B)+C}{C \cdot (A-B)} - \frac{(N_1 \cdot N_2 - N_1 \cdot N_3) + N_2 \cdot N_3}{N_2 - N_1} = 0.00000$$

$R_2 = 0.29412$

$$\frac{C \cdot (A-B)}{(A-B)+C} = 0.29412$$

$$R_2 - \frac{C \cdot (A-B)}{(A-B)+C} = 0.00000$$

1CST1R7

Given.

Unit. $ab := 1$ $N_1 := 2.09505$

$N_2 := 1.45041$ $N_3 := 1.74995$

$$A := \frac{1}{N_1} \quad B := \frac{1}{N_2} \quad C := \frac{1}{N_3}$$

Descriptions.

$$cN_2 := 1 - \frac{N_2}{N_1} \qquad R_1 := \frac{N_3}{1 - cN_2}$$

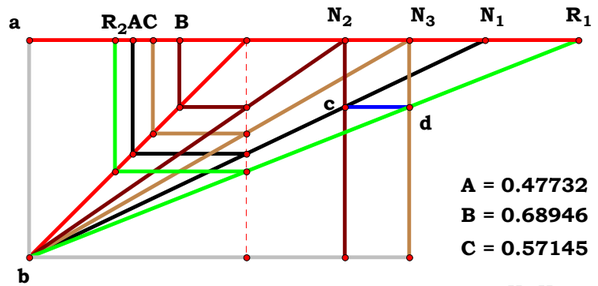
$R_1 = 2.527722$ $\qquad R_2 := \frac{1}{R_1}$

Definitions.

$$R_1 - \frac{N_1 \cdot N_3}{N_2} = 0$$

$$N_1 - \frac{1}{A} = 0 \qquad N_2 - \frac{1}{B} = 0 \qquad N_3 - \frac{1}{C} = 0$$

$$R_1 - \frac{B}{A \cdot C} = 0 \qquad R_2 - \frac{A \cdot C}{B} = 0$$



$A = 0.47732$
$B = 0.68946$
$C = 0.57145$

$ab = 1.00000$
$N_1 = 2.09505$
$N_2 = 1.45041$
$N_3 = 1.74995$

$R_1 = 2.52772$

$\frac{N_1 \cdot N_3}{N_2} = 2.52772$

$\frac{B}{A \cdot C} = 2.52772$

$R_1 - \frac{N_1 \cdot N_3}{N_2} = 0.00000$

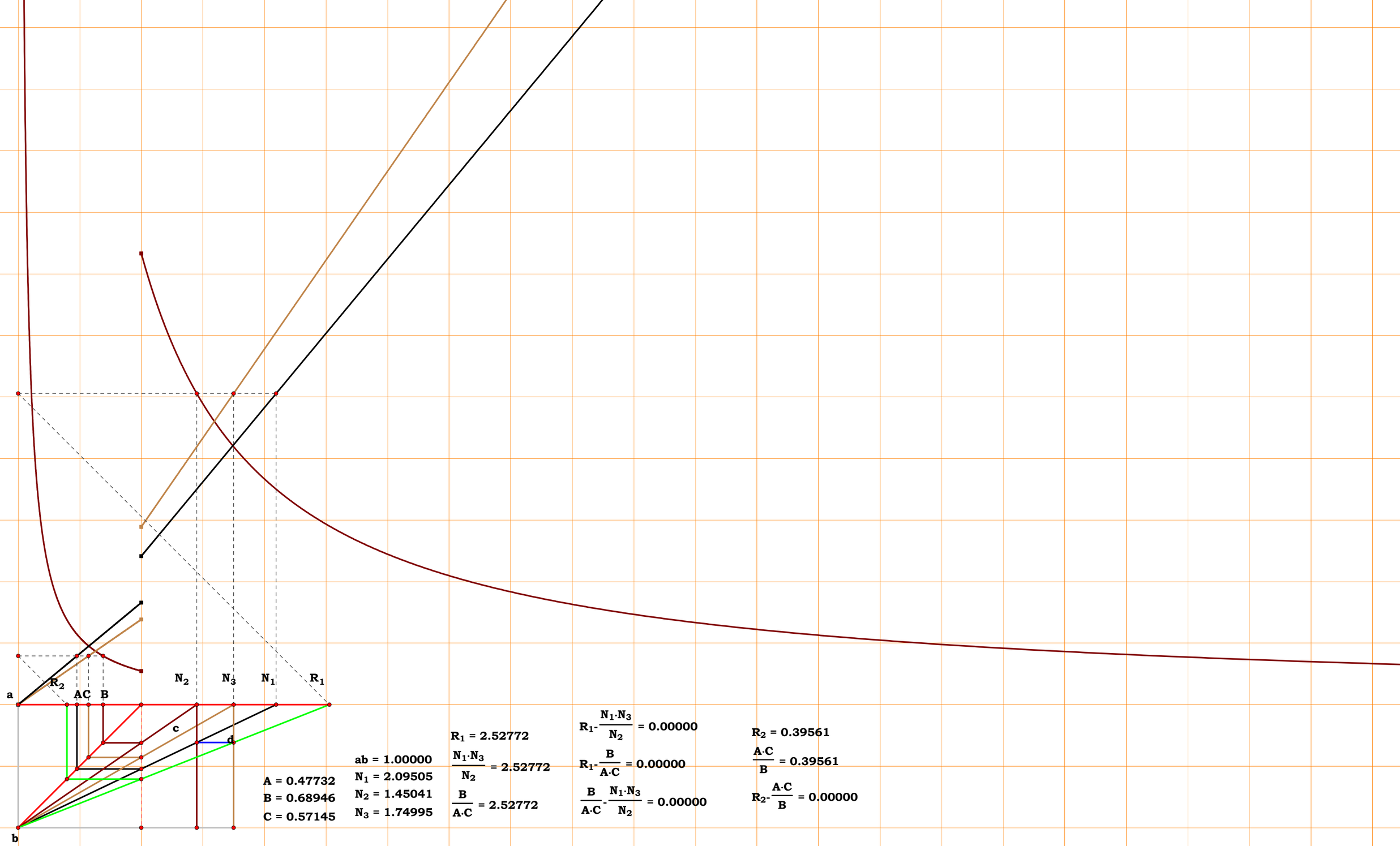
$R_1 - \frac{B}{A \cdot C} = 0.00000$

$\frac{B}{A \cdot C} - \frac{N_1 \cdot N_3}{N_2} = 0.00000$

$R_2 = 0.39561$

$\frac{A \cdot C}{B} = 0.39561$

$R_2 - \frac{A \cdot C}{B} = 0.00000$



$A = 0.47732$
$B = 0.68946$
$C = 0.57145$

$ab = 1.00000$
$N_1 = 2.09505$
$N_2 = 1.45041$
$N_3 = 1.74995$

$R_1 = 2.52772$

$\frac{N_1 \cdot N_3}{N_2} = 2.52772$

$\frac{B}{A \cdot C} = 2.52772$

$R_1 - \frac{N_1 \cdot N_3}{N_2} = 0.00000$

$R_1 - \frac{B}{A \cdot C} = 0.00000$

$\frac{B}{A \cdot C} - \frac{N_1 \cdot N_3}{N_2} = 0.00000$

$R_2 = 0.39561$

$\frac{A \cdot C}{B} = 0.39561$

$R_2 - \frac{A \cdot C}{B} = 0.00000$

1CST1R8

Given.

Unit. $ab := 1$ $N_1 := 2.32078$

$N_2 := 1.31188$ $N_3 := 1.55825$

$$A := \frac{1}{N_1} \quad B := \frac{1}{N_2} \quad C := \frac{1}{N_3}$$

Descriptions.

$$cN_2 := 1 - \frac{N_2}{N_1} \qquad ae := \frac{N_3}{1 - cN_2}$$

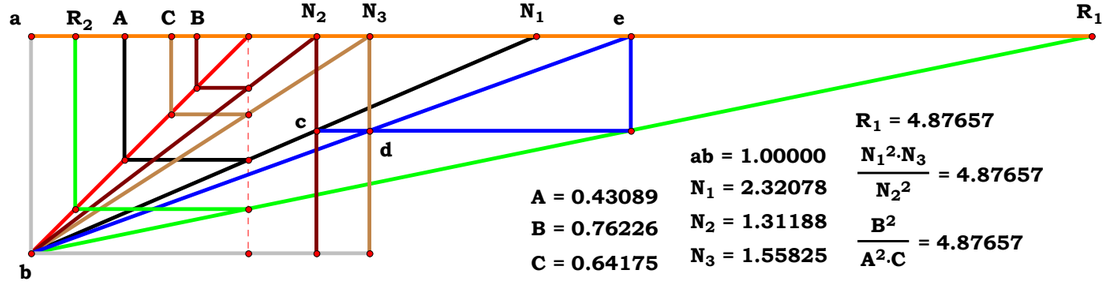
$$R_1 := \frac{ae}{1 - cN_2} \qquad R_1 = 4.876597 \qquad R_2 := \frac{1}{R_1}$$

Definitions.

$$R_1 - \frac{N_1^{\,2} \cdot N_3}{N_2^{\,2}} = 0$$

$$N_1 - \frac{1}{A} = 0 \qquad N_2 - \frac{1}{B} = 0 \qquad N_3 - \frac{1}{C} = 0$$

$$R_1 - \frac{B^2}{A^2 \cdot C} = 0 \qquad R_2 - \frac{A^2 \cdot C}{B^2} = 0$$



$R_1 = 4.87657$

$ab = 1.00000$ $\quad \frac{N_1^{\,2} \cdot N_3}{N_2^{\,2}} = 4.87657$

$A = 0.43089$ $\quad N_1 = 2.32078$

$B = 0.76226$ $\quad N_2 = 1.31188$ $\quad \frac{B^2}{A^2 \cdot C} = 4.87657$

$C = 0.64175$ $\quad N_3 = 1.55825$

$$R_1 - \frac{N_1^{\,2} \cdot N_3}{N_2^{\,2}} = 0.00000$$

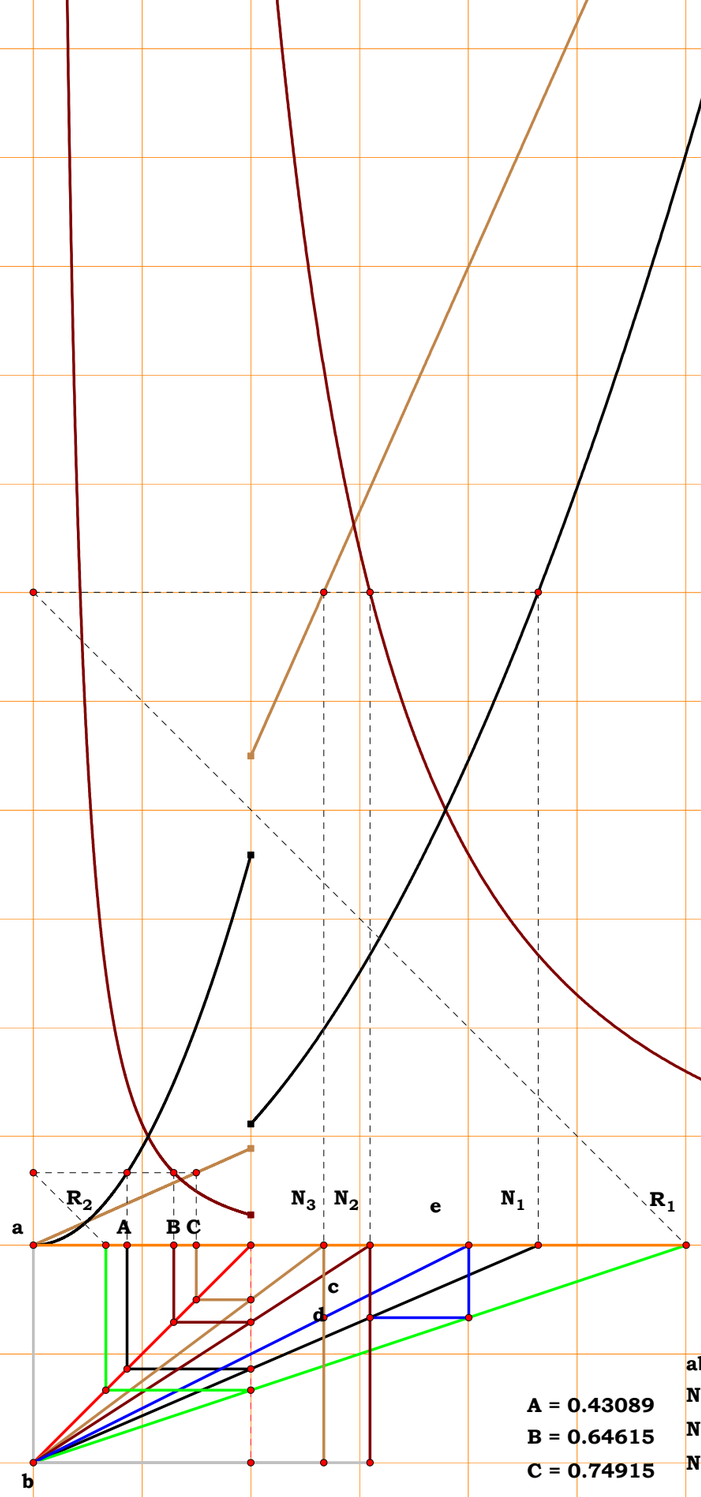
$$R_1 - \frac{B^2}{A^2 \cdot C} = 0.00000$$

$$\frac{B^2}{A^2 \cdot C} - \frac{N_1^{\,2} \cdot N_3}{N_2^{\,2}} = 0.00000$$

$R_2 = 0.20506$

$$\frac{A^2 \cdot C}{B^2} = 0.20506$$

$$R_2 - \frac{A^2 \cdot C}{B^2} = 0.00000$$



A = 0.43089
B = 0.64615
C = 0.74915

ab = 1.00000
N_1 = 2.32078
N_2 = 1.54763
N_3 = 1.33484

R_1 = 3.00167

$\frac{N_1^2 \cdot N_3}{N_2^2}$ = 3.00167

$\frac{B^2}{A^2 \cdot C}$ = 3.00167

$R_1 - \frac{N_1^2 \cdot N_3}{N_2^2}$ = 0.00000

$R_1 - \frac{B^2}{A^2 \cdot C}$ = 0.00000

$\frac{B^2}{A^2 \cdot C} - \frac{N_1^2 \cdot N_3}{N_2^2}$ = 0.00000

R_2 = 0.33315

$\frac{A^2 \cdot C}{B^2}$ = 0.33315

$R_2 - \frac{A^2 \cdot C}{B^2}$ = 0.00000

1CST1R9

Given.

Unit. $ab := 1$ $N_1 := 4.91650$

$N_2 := 1.52772$ $N_3 := 2.02884$

$A := \frac{1}{N_1}$ $B := \frac{1}{N_2}$ $C := \frac{1}{N_3}$

Descriptions.

$cN_2 := 1 - \frac{N_2}{N_1}$ $R_1 := \frac{N_3}{cN_2}$

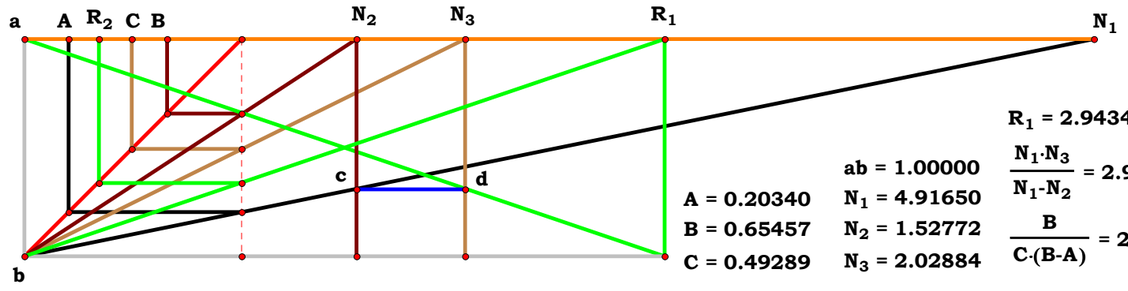
$R_1 = 2.943476$ $R_2 := \frac{1}{R_1}$

Definitions.

$$R_1 - \frac{N_1 \cdot N_3}{N_1 - N_2} = 0$$

$N_1 - \frac{1}{A} = 0$ $N_2 - \frac{1}{B} = 0$ $N_3 - \frac{1}{C} = 0$

$R_1 - \frac{B}{C \cdot (B - A)} = 0$ $R_2 - \frac{C \cdot (B - A)}{B} = 0$



$A = 0.20340$ $ab = 1.00000$

$B = 0.65457$ $N_1 = 4.91650$

$C = 0.49289$ $N_2 = 1.52772$

$N_3 = 2.02884$

$R_1 = 2.94348$

$\frac{N_1 \cdot N_3}{N_1 - N_2} = 2.94348$

$\frac{B}{C \cdot (B - A)} = 2.94348$

$R_1 - \frac{N_1 \cdot N_3}{N_1 - N_2} = 0.00000$

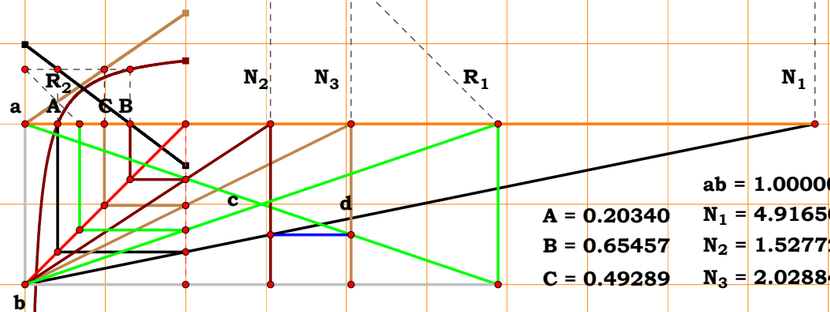
$R_1 - \frac{B}{C \cdot (B - A)} = 0.00000$

$\frac{B}{C \cdot (B - A)} - \frac{N_1 \cdot N_3}{N_1 - N_2} = 0.00000$

$R_2 = 0.33973$

$\frac{C \cdot (B - A)}{B} = 0.33973$

$R_2 - \frac{C \cdot (B - A)}{B} = 0.00000$



$A = 0.20340$
$B = 0.65457$
$C = 0.49289$

$ab = 1.00000$
$N_1 = 4.91650$
$N_2 = 1.52772$
$N_3 = 2.02884$

$R_1 = 2.94348$

$$\frac{N_1 \cdot N_3}{N_1 - N_2} = 2.94348$$

$$\frac{B}{C \cdot (B-A)} = 2.94348$$

$$R_1 - \frac{N_1 \cdot N_3}{N_1 - N_2} = 0.00000$$

$$R_1 - \frac{B}{C \cdot (B-A)} = 0.00000$$

$$\frac{B}{C \cdot (B-A)} - \frac{N_1 \cdot N_3}{N_1 - N_2} = 0.00000$$

$R_2 = 0.33973$

$$\frac{C \cdot (B-A)}{B} = 0.33973$$

$$R_2 - \frac{C \cdot (B-A)}{B} = 0.00000$$

1CST1R10

Given.

Unit. $ab := 1$ $N_1 := 3.19161$

$N_2 := 1.68348$ $N_3 := 1.24184$

$A := \frac{1}{N_1}$ $B := \frac{1}{N_2}$ $C := \frac{1}{N_3}$

Descriptions.

$cN_2 := 1 - \frac{N_2}{N_1}$ $ad := \frac{N_3}{1 - cN_2}$

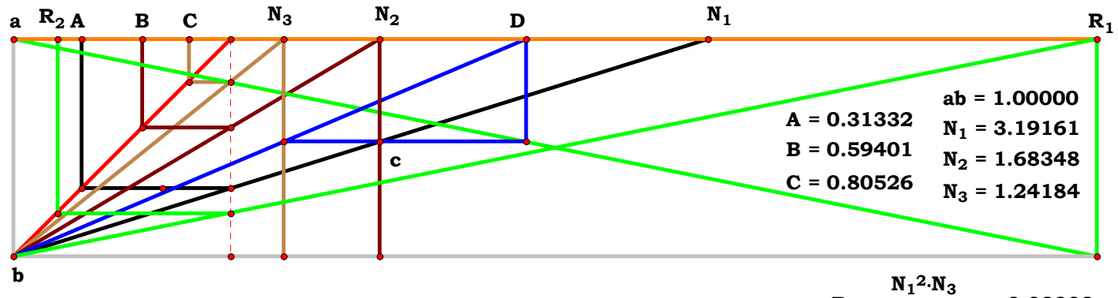
$R_1 := \frac{ad}{cN_2}$ $R_1 = 4.982399$ $R_2 := \frac{1}{R_1}$

Definitions.

$R_1 - \frac{N_1^2 \cdot N_3}{N_2 \cdot (N_1 - N_2)} = 0$

$N_1 - \frac{1}{A} = 0$ $N_2 - \frac{1}{B} = 0$ $N_3 - \frac{1}{C} = 0$

$R_1 - \frac{B^2}{C \cdot (A \cdot B - A^2)} = 0$ $R_2 - \frac{C \cdot (A \cdot B - A^2)}{B^2}$



A = 0.31332
B = 0.59401
C = 0.80526

ab = 1.00000
N1 = 3.19161
N2 = 1.68348
N3 = 1.24184

$R_1 = 4.98241$

$\frac{N_1^2 \cdot N_3}{N_2 \cdot (N_1 - N_2)} = 4.98241$

$\frac{B^2}{C \cdot (A \cdot B - A^2)} = 4.98241$

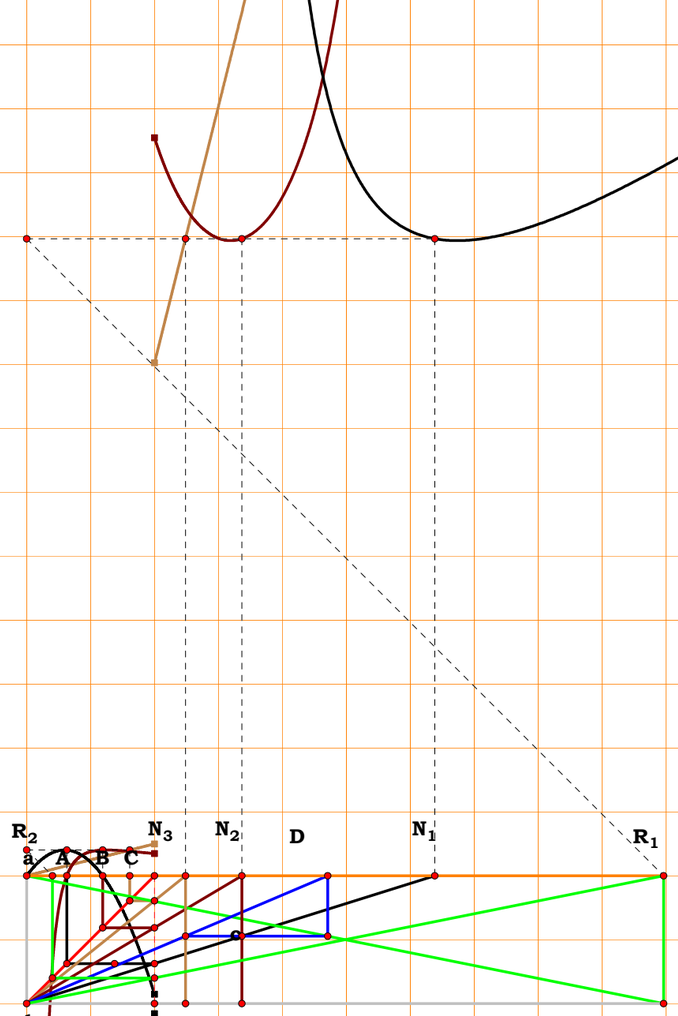
$R_1 - \frac{N_1^2 \cdot N_3}{N_2 \cdot (N_1 - N_2)} = 0.00000$

$R_1 - \frac{B^2}{C \cdot (A \cdot B - A^2)} = 0.00000$

$\frac{B^2}{C \cdot (A \cdot B - A^2)} - \frac{N_1^2 \cdot N_3}{N_2 \cdot (N_1 - N_2)} = 0.00000$

$R_2 = 0.20071$

$\frac{C \cdot (A \cdot B - A^2)}{B^2} = 0.20071$



$A = 0.31332$ $ab = 1.00000$

$B = 0.59401$ $N_1 = 3.19161$

$C = 0.80526$ $N_2 = 1.68348$

$N_3 = 1.24184$

$R_1 = 4.98241$

$$\frac{N_1^2 \cdot N_3}{N_2 \cdot (N_1 - N_2)} = 4.98241$$

$$\frac{B^2}{C \cdot (A \cdot B - A^2)} = 4.98241$$

$$R_1 - \frac{N_1^2 \cdot N_3}{N_2 \cdot (N_1 - N_2)} = 0.00000$$

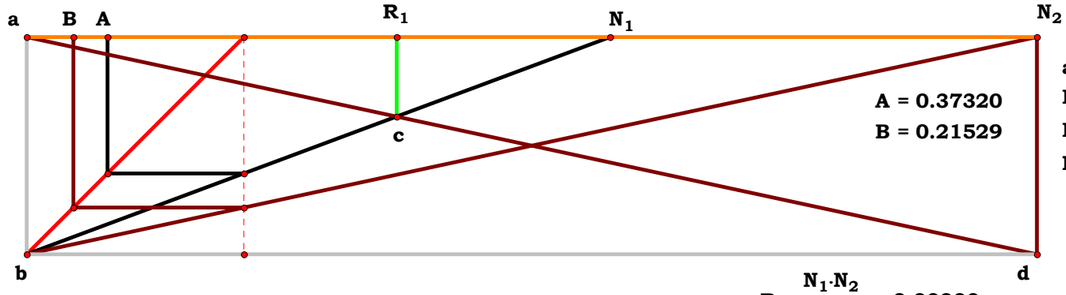
$$R_1 - \frac{B^2}{C \cdot (A \cdot B - A^2)} = 0.00000$$

$$\frac{B^2}{C \cdot (A \cdot B - A^2)} - \frac{N_1^2 \cdot N_3}{N_2 \cdot (N_1 - N_2)} = 0.00000$$

$R_2 = 0.20071$

$$\frac{C \cdot (A \cdot B - A^2)}{B^2} = 0.20071$$

1CST2R0



A = 0.37320
B = 0.21529

ab = 1.00000
N_1 = 2.67952
N_2 = 4.64487
R_1 = 1.69926

$R_1 = 1.69926$

$\frac{N_1 \cdot N_2}{N_1+N_2} = 1.69926$

$\frac{1}{A+B} = 1.69926$

Given.

Unit. $ab := 1$

$N_1 := 2.67952 \quad N_2 := 4.64497$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2}$

Descriptions.

$bd := N_2 \quad R_1 := \frac{bd \cdot N_1}{bd + N_1}$

$R_1 = 1.699271$

$R_1 - \frac{N_1 \cdot N_2}{N_1+N_2} = 0.00000$

$R_1 - \frac{1}{A+B} = 0.00000$

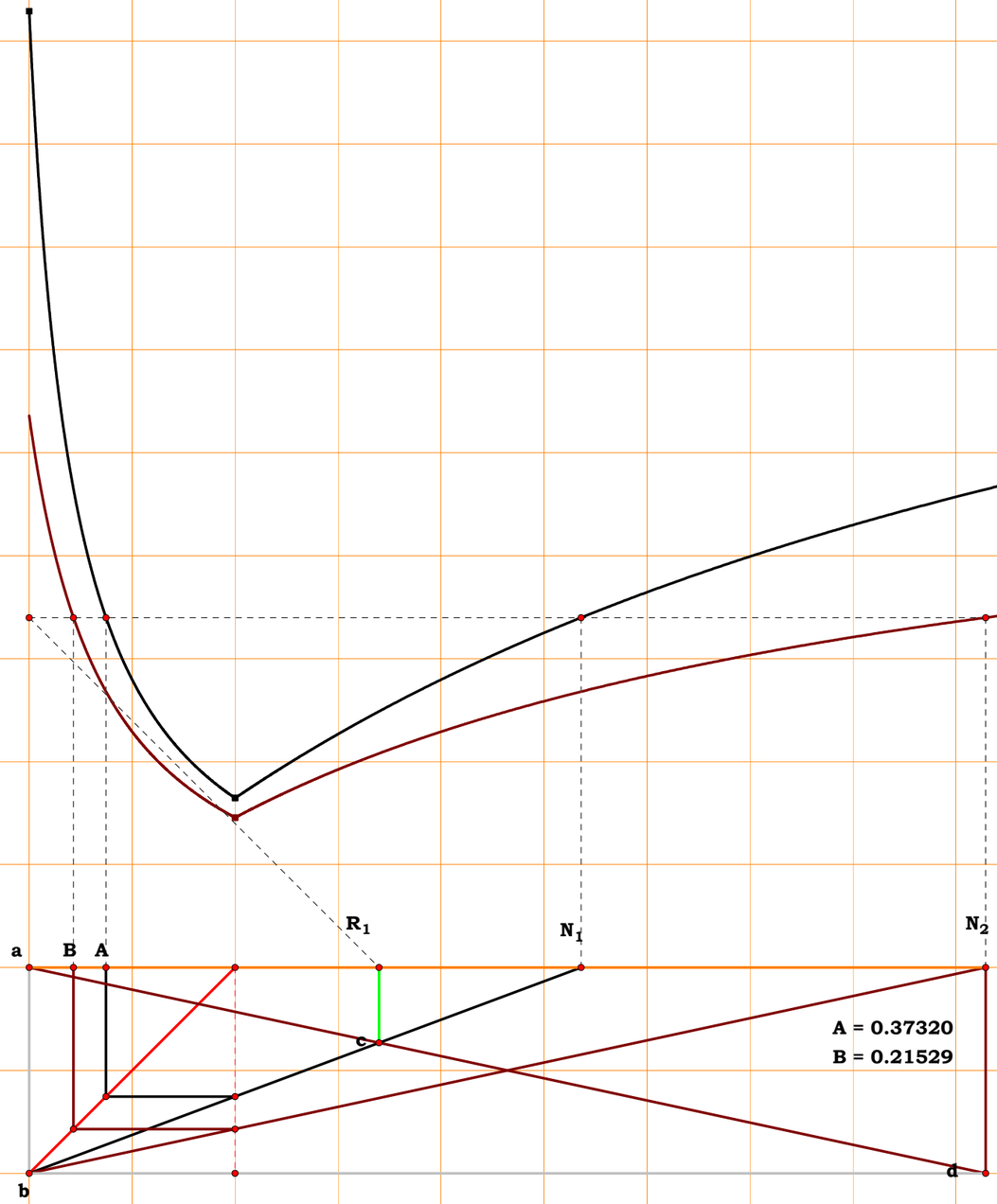
$\frac{1}{A+B} - \frac{N_1 \cdot N_2}{N_1+N_2} = 0.00000$

Definitions.

$R_1 - \frac{N_1 \cdot N_2}{N_1 + N_2} = 0$

$N_1 - \frac{1}{A} = 0 \qquad N_2 - \frac{1}{B} = 0$

$R_1 - \frac{1}{A+B} = 0$



A = 0.37320
B = 0.21529

ab = 1.00000
N_1 = 2.67952
N_2 = 4.64487
R_1 = 1.69926

$R_1 = 1.69926$

$\frac{N_1 \cdot N_2}{N_1+N_2} = 1.69926$

$\frac{1}{A+B} = 1.69926$

$R_1 - \frac{N_1 \cdot N_2}{N_1+N_2} = 0.00000$

$R_1 - \frac{1}{A+B} = 0.00000$

$\frac{1}{A+B} - \frac{N_1 \cdot N_2}{N_1+N_2} = 0.00000$

1CST2R1

Given.

Unit. $ab := 1$ $N_1 := 2.70683$

$N_2 := 3.68191$ $N_3 := 5.30802$

$$A := \frac{1}{N_1} \quad B := \frac{1}{N_2} \quad C := \frac{1}{N_3}$$

Descriptions.

$$ad := \frac{N_1 \cdot N_2}{N_1 + N_2} \qquad R_1 := \frac{ad \cdot N_3}{ad + N_3}$$

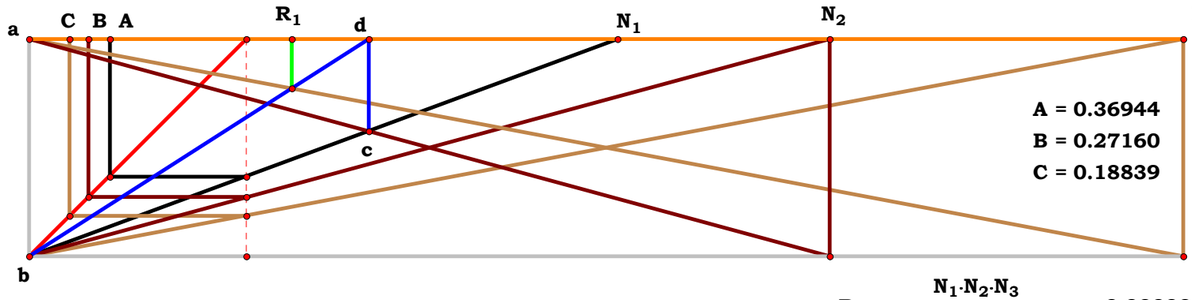
$R_1 = 1.20565$

Definitions.

$$R_1 - \frac{N_1 \cdot N_2 \cdot N_3}{N_1 \cdot N_2 + N_1 \cdot N_3 + N_2 \cdot N_3} = 0$$

$$N_1 - \frac{1}{A} = 0 \qquad N_2 - \frac{1}{B} = 0 \quad N_3 - \frac{1}{C} = 0$$

$$R_1 - \frac{1}{A + B + C} = 0$$



A = 0.36944
B = 0.27160
C = 0.18839

ab = 1.00000
N_1 = 2.70683
N_2 = 3.68191
N_3 = 5.30802

$R_1 = 1.20565$

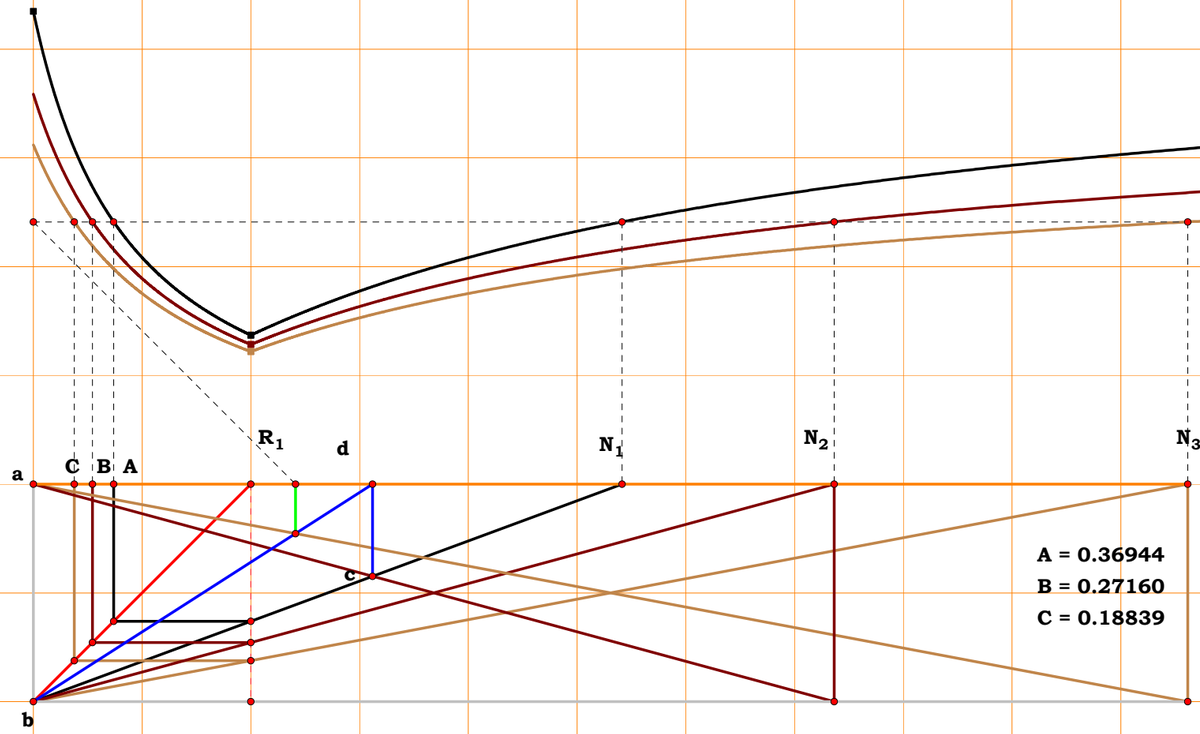
$$\frac{N_1 \cdot N_2 \cdot N_3}{N_1 \cdot N_2 + N_1 \cdot N_3 + N_2 \cdot N_3} = 1.20565$$

$$\frac{1}{A+B+C} = 1.20565$$

$$R_1 - \frac{N_1 \cdot N_2 \cdot N_3}{N_1 \cdot N_2 + N_1 \cdot N_3 + N_2 \cdot N_3} = 0.00000$$

$$R_1 - \frac{1}{A+B+C} = 0.00000$$

$$\frac{1}{A+B+C} - \frac{N_1 \cdot N_2 \cdot N_3}{N_1 \cdot N_2 + N_1 \cdot N_3 + N_2 \cdot N_3} = 0.00000$$



A = 0.36944
B = 0.27160
C = 0.18839

ab = 1.00000
N_1 = 2.70683
N_2 = 3.68191
N_3 = 5.30802

$R_1 = 1.20565$

$$\frac{N_1 \cdot N_2 \cdot N_3}{N_1 \cdot N_2 + N_1 \cdot N_3 + N_2 \cdot N_3} = 1.20565$$

$$\frac{1}{A+B+C} = 1.20565$$

$$R_1 - \frac{N_1 \cdot N_2 \cdot N_3}{N_1 \cdot N_2 + N_1 \cdot N_3 + N_2 \cdot N_3} = 0.00000$$

$$R_1 - \frac{1}{A+B+C} = 0.00000$$

$$\frac{1}{A+B+C} - \frac{N_1 \cdot N_2 \cdot N_3}{N_1 \cdot N_2 + N_1 \cdot N_3 + N_2 \cdot N_3} = 0.00000$$

1CST2R2

Given.

Unit. $ab := 1$ $N_1 := 3.51337$

$N_2 := 2.49592$ $N_3 := 4.77660$

$A := \frac{1}{N_1}$ $B := \frac{1}{N_2}$ $C := \frac{1}{N_3}$

Descriptions.

$ae := \frac{N_1 \cdot N_2}{N_1 + N_2}$ $ac := \frac{ae \cdot N_3}{ae + N_3}$

$cd := \frac{ac}{N_3}$ $R_1 := \frac{ae}{1 - cd}$

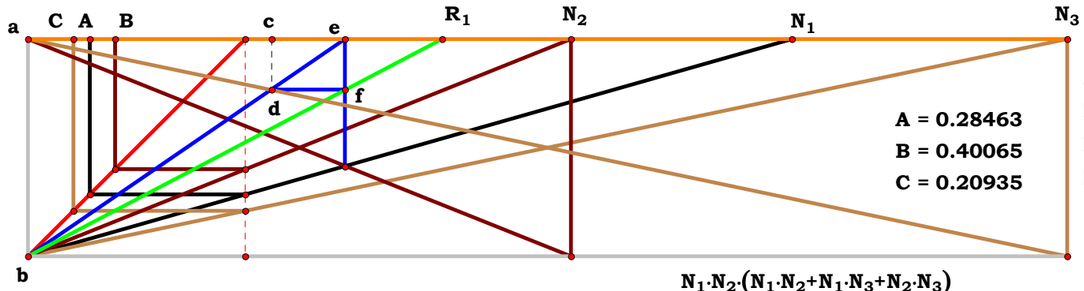
$R_1 = 1.90506$

Definitions.

$$R_1 - \frac{N_1 \cdot N_2 \cdot (N_1 \cdot N_2 + N_1 \cdot N_3 + N_2 \cdot N_3)}{N_3 \cdot (N_1 + N_2)^2} = 0$$

$N_1 - \frac{1}{A} = 0$ $N_2 - \frac{1}{B} = 0$ $N_3 - \frac{1}{C} = 0$

$$R_1 - \frac{(A + B + C)}{(A + B)^2} = 0$$



A = 0.28463
B = 0.40065
C = 0.20935

ab = 1.00000
N_1 = 3.51337
N_2 = 2.49592
N_3 = 4.77660

$R_1 = 1.90506$

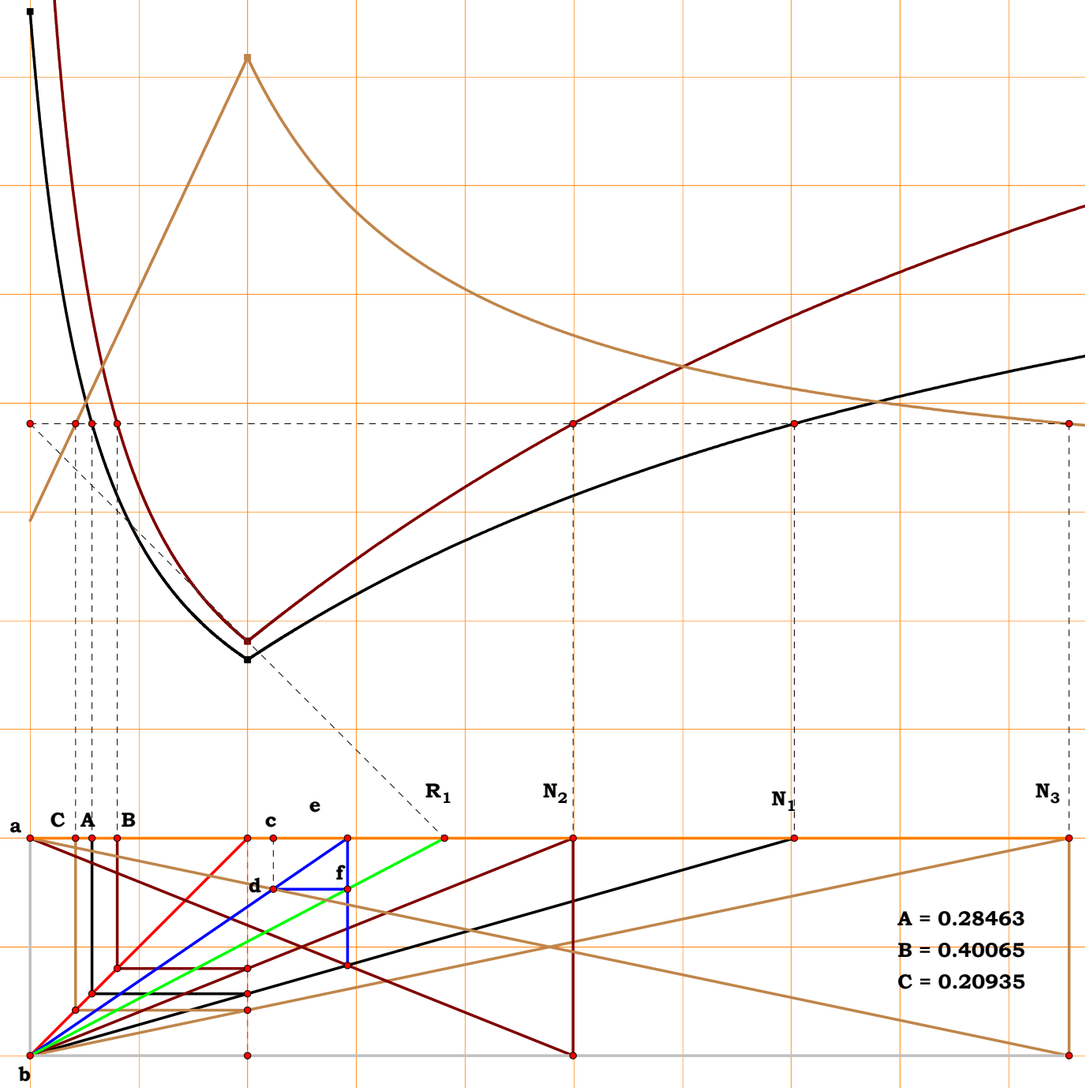
$\frac{N_1 \cdot N_2 \cdot (N_1 \cdot N_2 + N_1 \cdot N_3 + N_2 \cdot N_3)}{N_3 \cdot (N_1 + N_2)^2} = 1.90506$

$\frac{A+B+C}{(A+B)^2} = 1.90506$

$R_1 - \frac{N_1 \cdot N_2 \cdot (N_1 \cdot N_2 + N_1 \cdot N_3 + N_2 \cdot N_3)}{N_3 \cdot (N_1 + N_2)^2} = 0.00000$

$R_1 - \frac{A+B+C}{(A+B)^2} = 0.00000$

$\frac{A+B+C}{(A+B)^2} - \frac{N_1 \cdot N_2 \cdot (N_1 \cdot N_2 + N_1 \cdot N_3 + N_2 \cdot N_3)}{N_3 \cdot (N_1 + N_2)^2} = 0.00000$



A = 0.28463
B = 0.40065
C = 0.20935

ab = 1.00000
N_1 = 3.51337
N_2 = 2.49592
N_3 = 4.77660

$R_1 = 1.90506$

$$\frac{N_1 \cdot N_2 \cdot (N_1 \cdot N_2 + N_1 \cdot N_3 + N_2 \cdot N_3)}{N_3 \cdot (N_1 + N_2)^2} = 1.90506$$

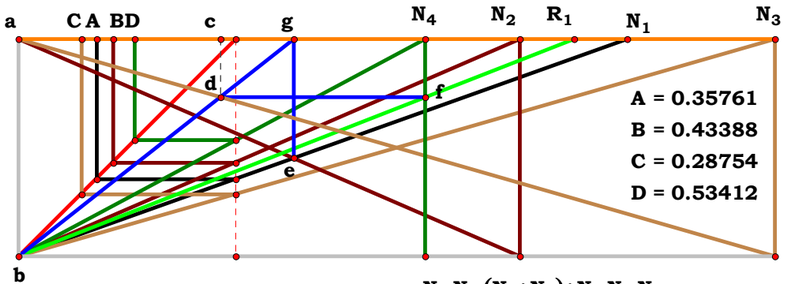
$$\frac{A+B+C}{(A+B)^2} = 1.90506$$

$$R_1 - \frac{N_1 \cdot N_2 \cdot (N_1 \cdot N_2 + N_1 \cdot N_3 + N_2 \cdot N_3)}{N_3 \cdot (N_1 + N_2)^2} = 0.00000$$

$$R_1 - \frac{A+B+C}{(A+B)^2} = 0.00000$$

$$\frac{A+B+C}{(A+B)^2} - \frac{N_1 \cdot N_2 \cdot (N_1 \cdot N_2 + N_1 \cdot N_3 + N_2 \cdot N_3)}{N_3 \cdot (N_1 + N_2)^2} = 0.00000$$

1CST2R3



ab = 1.00000
N_1 = 2.79633
N_2 = 2.30481
N_3 = 3.47782
N_4 = 1.87224

R_1 = 2.55240

$$\frac{N_1 \cdot N_4 \cdot (N_2+N_3)+N_2 \cdot N_3 \cdot N_4}{N_3 \cdot (N_1+N_2)} = 2.55240$$

$$\frac{A+B+C}{D \cdot (A+B)} = 2.55240$$

Given.

Unit. $ab := 1$ $N_1 := 2.79633$

$N_2 := 2.30481$ $N_3 := 3.47782$ $N_4 := 1.87224$

$$A := \frac{1}{N_1} \quad B := \frac{1}{N_2} \quad C := \frac{1}{N_3} \quad D := \frac{1}{N_4}$$

Descriptions.

$$ag := \frac{N_1 \cdot N_2}{N_1 + N_2} \qquad ac := \frac{ag \cdot N_3}{ag + N_3}$$

$$cd := \frac{ac}{N_3} \qquad R_1 := \frac{N_4}{1 - cd}$$

$R_1 = 2.552399$

Definitions.

$$R_1 - \frac{N_1 \cdot N_4 \cdot (N_2 + N_3) + N_2 \cdot N_3 \cdot N_4}{N_3 \cdot (N_1 + N_2)} = 0$$

$$N_1 - \frac{1}{A} = 0 \qquad N_2 - \frac{1}{B} = 0$$

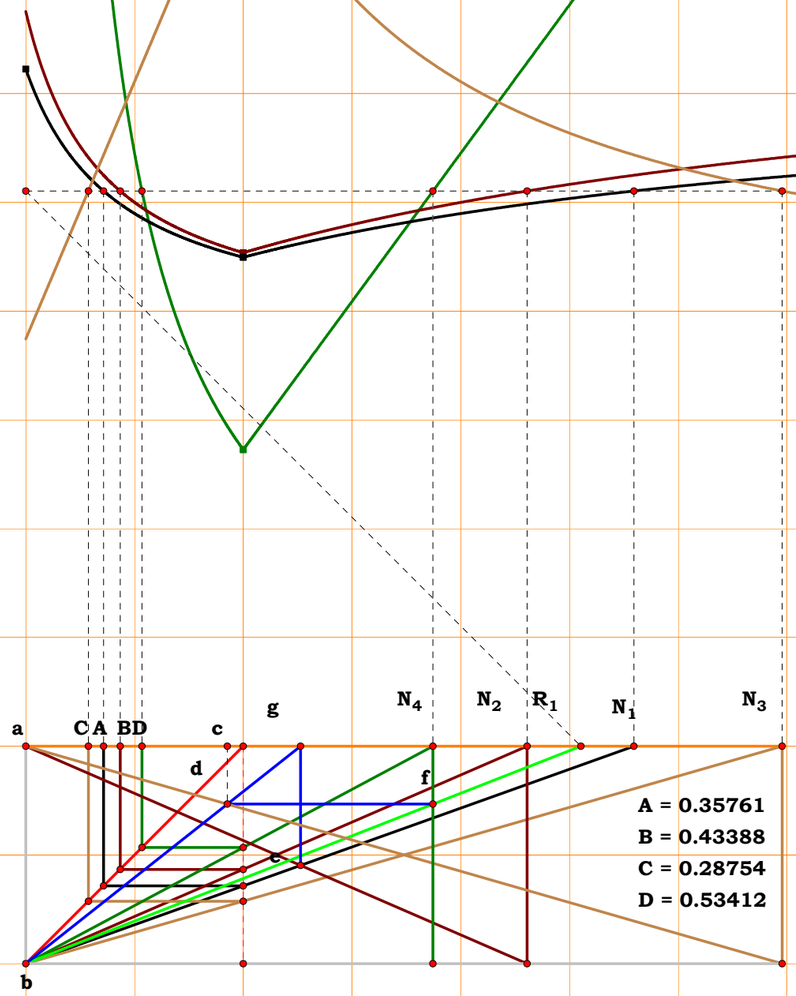
$$N_3 - \frac{1}{C} = 0 \qquad N_4 - \frac{1}{D} = 0$$

$$R_1 - \frac{(A + B + C)}{D \cdot (A + B)} = 0$$

$$R_1 - \frac{N_1 \cdot N_4 \cdot (N_2+N_3)+N_2 \cdot N_3 \cdot N_4}{N_3 \cdot (N_1+N_2)} = 0.00000$$

$$R_1 - \frac{A+B+C}{D \cdot (A+B)} = 0.00000$$

$$\frac{A+B+C}{D \cdot (A+B)} - \frac{N_1 \cdot N_4 \cdot (N_2+N_3)+N_2 \cdot N_3 \cdot N_4}{N_3 \cdot (N_1+N_2)} = 0.00000$$



$A = 0.35761$

$B = 0.43388$

$C = 0.28754$

$D = 0.53412$

$ab = 1.00000$

$N_1 = 2.79633$

$N_2 = 2.30481$

$N_3 = 3.47782$

$N_4 = 1.87224$

$R_1 = 2.55240$

$$\frac{N_1 \cdot N_4 \cdot (N_2+N_3)+N_2 \cdot N_3 \cdot N_4}{N_3 \cdot (N_1+N_2)} = 2.55240$$

$$\frac{A+B+C}{D \cdot (A+B)} = 2.55240$$

$$R_1 - \frac{N_1 \cdot N_4 \cdot (N_2+N_3)+N_2 \cdot N_3 \cdot N_4}{N_3 \cdot (N_1+N_2)} = 0.00000$$

$$R_1 - \frac{A+B+C}{D \cdot (A+B)} = 0.00000$$

$$\frac{A+B+C}{D \cdot (A+B)} - \frac{N_1 \cdot N_4 \cdot (N_2+N_3)+N_2 \cdot N_3 \cdot N_4}{N_3 \cdot (N_1+N_2)} = 0.00000$$

1CST2R4

Given.

Unit. $ab := 1 \quad N_1 := 3.69900$

$N_2 := 2.52135 \quad N_3 := 2.03023$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2} \quad C := \frac{1}{N_3}$

Descriptions.

$ad := \frac{N_1 \cdot N_2}{N_1 + N_2} \qquad ac := \frac{ad \cdot N_3}{ad + N_3}$

$ce := \frac{ac}{N_3} \qquad R_1 := \frac{ad}{ce}$

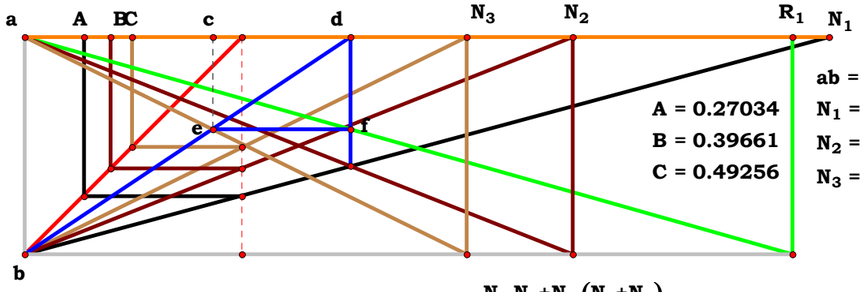
$R_1 = 3.529579$

Definitions.

$R_1 - \frac{N_1 \cdot N_2 + N_3 \cdot (N_1 + N_2)}{N_1 + N_2} = 0$

$N_1 - \frac{1}{A} = 0 \qquad N_2 - \frac{1}{B} = 0 \qquad N_3 - \frac{1}{C} = 0$

$R_1 - \frac{(A + B + C)}{C \cdot (A + B)} = 0$



ab = 1.00000
A = 0.27034
B = 0.39661
C = 0.49256
N_1 = 3.69900
N_2 = 2.52135
N_3 = 2.03023

$R_1 = 3.52957$

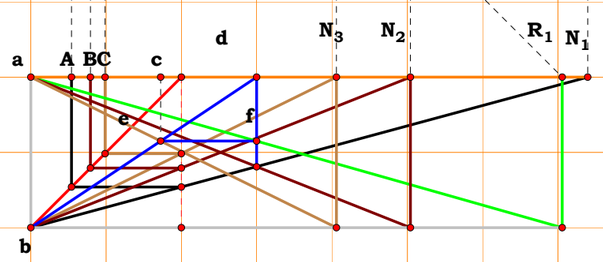
$\frac{N_1 \cdot N_2 + N_3 \cdot (N_1 + N_2)}{N_1 + N_2} = 3.52957$

$\frac{A+B+C}{C \cdot (A+B)} = 3.52957$

$R_1 - \frac{N_1 \cdot N_2 + N_3 \cdot (N_1 + N_2)}{N_1 + N_2} = 0.00000$

$R_1 - \frac{A+B+C}{C \cdot (A+B)} = 0.00000$

$\frac{A+B+C}{C \cdot (A+B)} - \frac{N_1 \cdot N_2 + N_3 \cdot (N_1 + N_2)}{N_1 + N_2} = 0.00000$



$ab = 1.00000$

$A = 0.27034$

$B = 0.39661$

$C = 0.49256$

$N_1 = 3.69900$

$N_2 = 2.52135$

$N_3 = 2.03023$

$R_1 = 3.52957$

$$\frac{N_1 \cdot N_2 + N_3 \cdot (N_1 + N_2)}{N_1 + N_2} = 3.52957$$

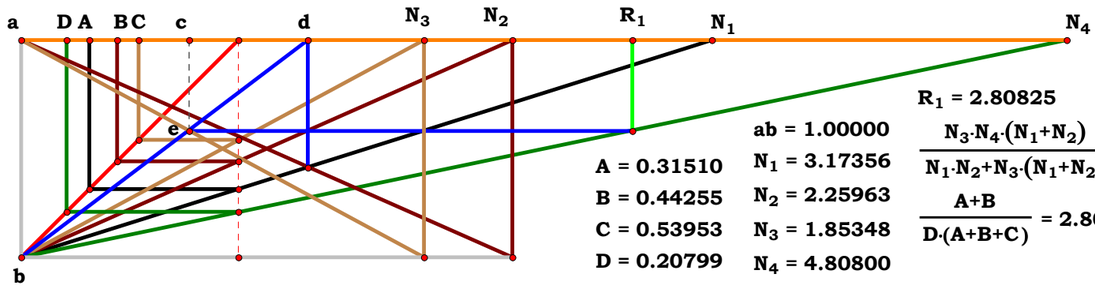
$$\frac{A+B+C}{C \cdot (A+B)} = 3.52957$$

$$R_1 - \frac{N_1 \cdot N_2 + N_3 \cdot (N_1 + N_2)}{N_1 + N_2} = 0.00000$$

$$R_1 - \frac{A+B+C}{C \cdot (A+B)} = 0.00000$$

$$\frac{A+B+C}{C \cdot (A+B)} - \frac{N_1 \cdot N_2 + N_3 \cdot (N_1 + N_2)}{N_1 + N_2} = 0.00000$$

1CST2R5



$R_1 = 2.80825$

$ab = 1.00000$ $\quad \frac{N_3 \cdot N_4 \cdot (N_1+N_2)}{N_1 \cdot N_2 + N_3 \cdot (N_1+N_2)} = 2.80825$

$A = 0.31510$ $\quad N_1 = 3.17356$

$B = 0.44255$ $\quad N_2 = 2.25963$ $\quad \frac{A+B}{D \cdot (A+B+C)} = 2.80825$

$C = 0.53953$ $\quad N_3 = 1.85348$

$D = 0.20799$ $\quad N_4 = 4.80800$

$$R_1 - \frac{N_3 \cdot N_4 \cdot (N_1+N_2)}{N_1 \cdot N_2 + N_3 \cdot (N_1+N_2)} = 0.00000$$

$$R_1 - \frac{A+B}{D \cdot (A+B+C)} = 0.00000$$

$$\frac{A+B}{D \cdot (A+B+C)} - \frac{N_3 \cdot N_4 \cdot (N_1+N_2)}{N_1 \cdot N_2 + N_3 \cdot (N_1+N_2)} = 0.00000$$

Given.

Unit. $ab := 1$

$N_1 := 3.17356 \quad N_2 := 2.25963$

$N_3 := 1.85348 \quad N_4 := 4.80800$

$$A := \frac{1}{N_1} \quad B := \frac{1}{N_2} \quad C := \frac{1}{N_3} \quad D := \frac{1}{N_4}$$

Descriptions.

$$ad := \frac{N_1 \cdot N_2}{N_1 + N_2} \qquad ac := \frac{ad \cdot N_3}{ad + N_3}$$

$$ce := \frac{ac}{N_3} \qquad R_1 := N_4 \cdot (1 - ce)$$

$R_1 = 2.808246$

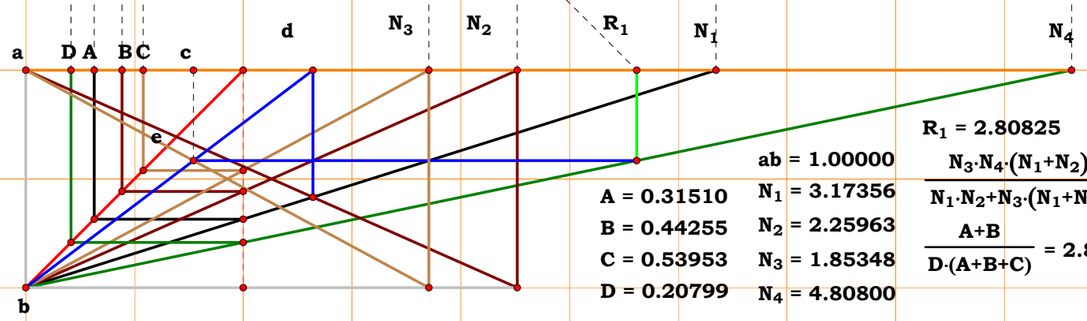
Definitions.

$$R_1 - \frac{N_3 \cdot N_4 \cdot (N_1 + N_2)}{N_1 \cdot N_2 + N_3 \cdot (N_1 + N_2)} = 0$$

$$N_1 - \frac{1}{A} = 0 \qquad N_2 - \frac{1}{B} = 0$$

$$N_3 - \frac{1}{C} = 0 \qquad N_4 - \frac{1}{D} = 0$$

$$R_1 - \frac{(A + B)}{D \cdot (A + B + C)} = 0$$



A = 0.31510
B = 0.44255
C = 0.53953
D = 0.20799

ab = 1.00000
N_1 = 3.17356
N_2 = 2.25963
N_3 = 1.85348
N_4 = 4.80800

R_1 = 2.80825

$$\frac{N_3 \cdot N_4 \cdot (N_1+N_2)}{N_1 \cdot N_2 + N_3 \cdot (N_1+N_2)} = 2.80825$$

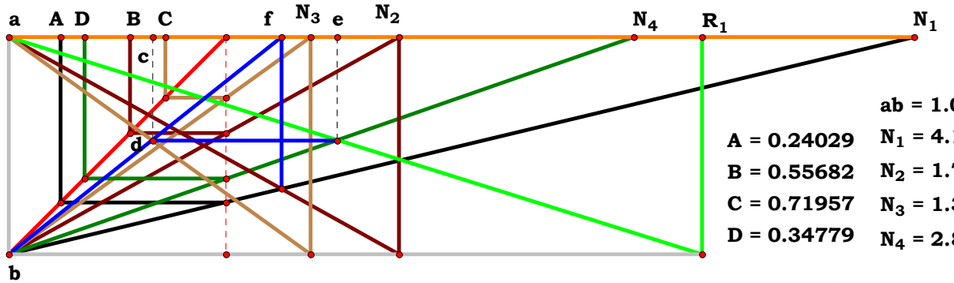
$$\frac{A+B}{D \cdot (A+B+C)} = 2.80825$$

$$R_1 - \frac{N_3 \cdot N_4 \cdot (N_1+N_2)}{N_1 \cdot N_2 + N_3 \cdot (N_1+N_2)} = 0.00000$$

$$R_1 - \frac{A+B}{D \cdot (A+B+C)} = 0.00000$$

$$\frac{A+B}{D \cdot (A+B+C)} - \frac{N_3 \cdot N_4 \cdot (N_1+N_2)}{N_1 \cdot N_2 + N_3 \cdot (N_1+N_2)} = 0.00000$$

1CST2R6



ab = 1.00000
A = 0.24029
B = 0.55682
C = 0.71957
D = 0.34779
N1 = 4.16164
N2 = 1.79591
N3 = 1.38971
N4 = 2.87533

R1 = 3.18516

$\frac{(N_1+N_2)\cdot N_3\cdot N_4}{N_1\cdot N_2} = 3.18516$

$\frac{A+B}{C\cdot D} = 3.18516$

$R_1-\frac{(N_1+N_2)\cdot N_3\cdot N_4}{N_1\cdot N_2} = 0.00000$

$R_1-\frac{A+B}{C\cdot D} = 0.00000$

$\frac{A+B}{C\cdot D}-\frac{(N_1+N_2)\cdot N_3\cdot N_4}{N_1\cdot N_2} = 0.00000$

Given.

Unit. $ab := 1$

$N_1 := 4.16164 \quad N_2 := 1.79591$

$N_3 := 1.38971 \quad N_4 := 2.87533$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2} \quad C := \frac{1}{N_3} \quad D := \frac{1}{N_4}$

Descriptions.

$af := \frac{N_1\cdot N_2}{N_1+N_2} \quad ac := \frac{af\cdot N_3}{af+N_3}$

$cd := \frac{ac}{N_3} \quad ae := N_4\cdot(1-cd)$

$R_1 := \frac{ae}{cd} \quad R_1 = 3.185154$

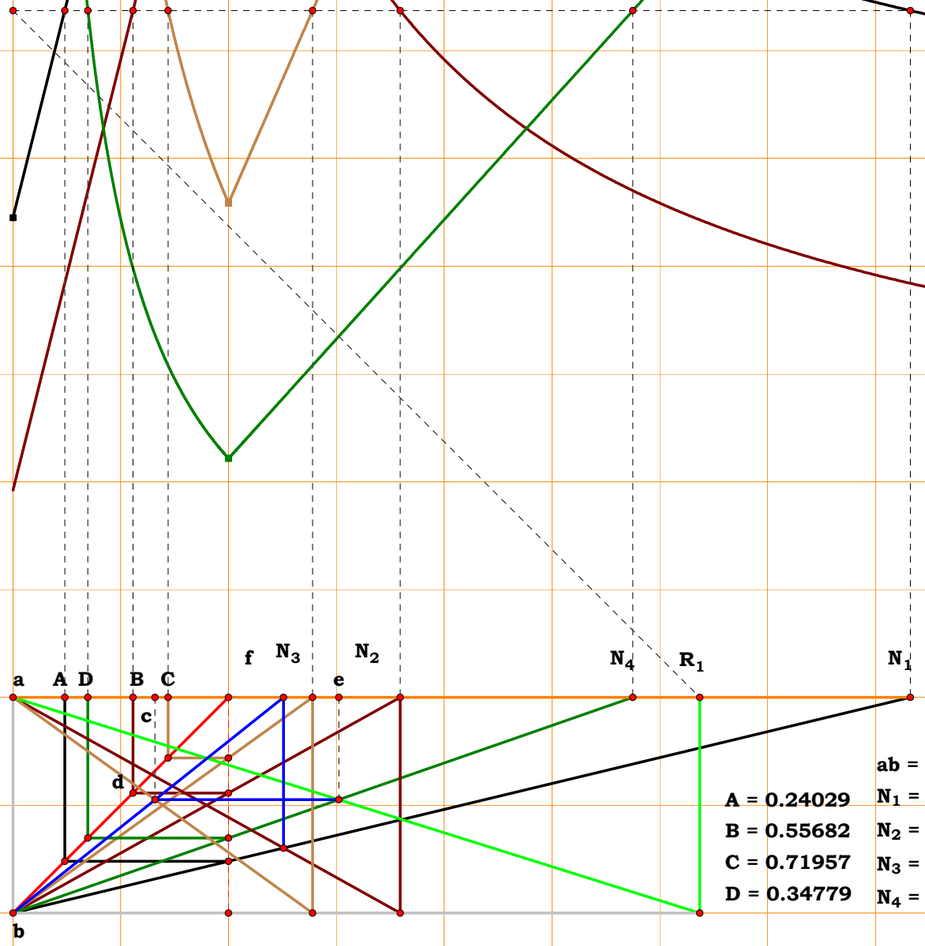
Definitions.

$R_1-\frac{N_3\cdot N_4\cdot(N_1+N_2)}{N_1\cdot N_2} = 0$

$N_1-\frac{1}{A} = 0 \quad N_2-\frac{1}{B} = 0$

$N_3-\frac{1}{C} = 0 \quad N_4-\frac{1}{D} = 0$

$R_1-\frac{(A+B)}{C\cdot D} = 0$



$A = 0.24029$
$B = 0.55682$
$C = 0.71957$
$D = 0.34779$

$ab = 1.00000$
$N_1 = 4.16164$
$N_2 = 1.79591$
$N_3 = 1.38971$
$N_4 = 2.87533$

$R_1 = 3.18516$

$$\frac{(N_1+N_2)\cdot N_3\cdot N_4}{N_1\cdot N_2} = 3.18516$$

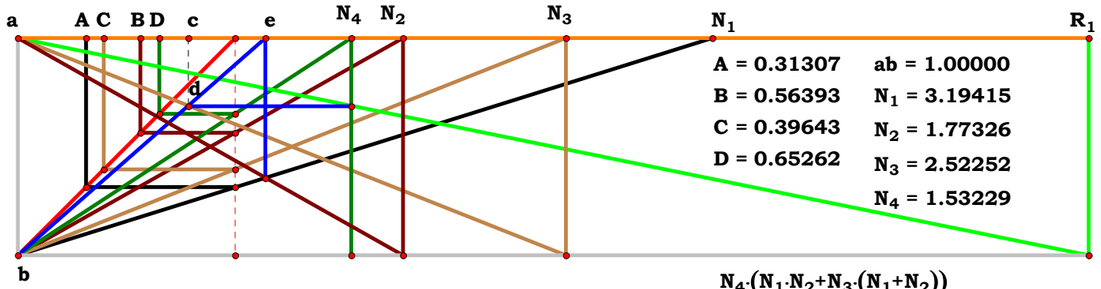
$$\frac{A+B}{C\cdot D} = 3.18516$$

$$R_1-\frac{(N_1+N_2)\cdot N_3\cdot N_4}{N_1\cdot N_2} = 0.00000$$

$$R_1-\frac{A+B}{C\cdot D} = 0.00000$$

$$\frac{A+B}{C\cdot D}-\frac{(N_1+N_2)\cdot N_3\cdot N_4}{N_1\cdot N_2} = 0.00000$$

1CST2R7



A = 0.31307 ab = 1.00000
B = 0.56393 N_1 = 3.19415
C = 0.39643 N_2 = 1.77326
D = 0.65262 N_3 = 2.52252
N_4 = 1.53229

R_1 = 4.92211

$$\frac{N_4\cdot(N_1\cdot N_2+N_3\cdot(N_1+N_2))}{N_1\cdot N_2} = 4.92211$$

$$\frac{A+B+C}{C\cdot D} = 4.92211$$

Given.

Unit. ab := 1 N_1 := 3.19415 N_2 := 1.77326

N_3 := 2.52252 N_4 := 1.53229

$$A := \frac{1}{N_1} \quad B := \frac{1}{N_2} \quad C := \frac{1}{N_3} \quad D := \frac{1}{N_4}$$

Descriptions.

$$ae := \frac{N_1\cdot N_2}{N_1+N_2} \qquad ac := \frac{ae\cdot N_3}{ae+N_3}$$

$$cd := \frac{ac}{N_3} \qquad R_1 := \frac{N_4}{cd}$$

R_1 = 4.92212

Definitions.

$$R_1 - \frac{N_4\cdot\left[N_1\cdot N_2+N_3\cdot\left(N_1+N_2\right)\right]}{N_1\cdot N_2} = 0$$

$$N_1 - \frac{1}{A} = 0 \qquad N_2 - \frac{1}{B} = 0$$

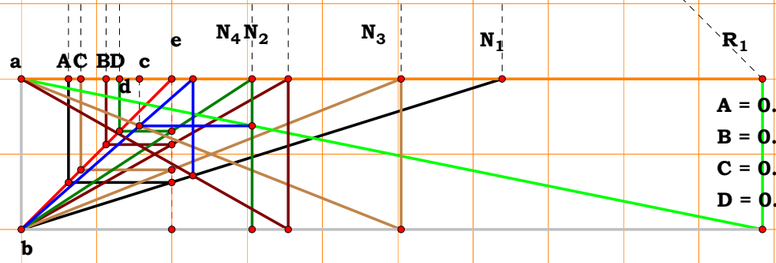
$$N_3 - \frac{1}{C} = 0 \qquad N_4 - \frac{1}{D} = 0$$

$$R_1 - \frac{(A+B+C)}{C\cdot D} = 0$$

$$R_1 - \frac{N_4\cdot(N_1\cdot N_2+N_3\cdot(N_1+N_2))}{N_1\cdot N_2} = 0.00000$$

$$R_1 - \frac{A+B+C}{C\cdot D} = 0.00000$$

$$\frac{A+B+C}{C\cdot D} - \frac{N_4\cdot(N_1\cdot N_2+N_3\cdot(N_1+N_2))}{N_1\cdot N_2} = 0.00000$$



A = 0.31307
B = 0.56393
C = 0.39643
D = 0.65262

ab = 1.00000
N_1 = 3.19415
N_2 = 1.77326
N_3 = 2.52252
N_4 = 1.53229

$R_1 = 4.92211$

$$\frac{N_4\cdot(N_1\cdot N_2+N_3\cdot(N_1+N_2))}{N_1\cdot N_2} = 4.92211$$

$$\frac{A+B+C}{C\cdot D} = 4.92211$$

$$R_1-\frac{N_4\cdot(N_1\cdot N_2+N_3\cdot(N_1+N_2))}{N_1\cdot N_2} = 0.00000$$

$$R_1-\frac{A+B+C}{C\cdot D} = 0.00000$$

$$\frac{A+B+C}{C\cdot D}-\frac{N_4\cdot(N_1\cdot N_2+N_3\cdot(N_1+N_2))}{N_1\cdot N_2} = 0.00000$$

1CST3R0

Given.

Unit. $ab := 1$ $N_1 := 3.34279$

$N_2 := 1.99813$ $N_3 := 2.45592$

$A := \frac{1}{N_1}$ $B := \frac{1}{N_2}$ $C := \frac{1}{N_3}$

Descriptions.

$de := \frac{N_2}{N_1}$ $cr := 1 - de$

$rN_3 := N_3 \cdot cr$ $R_1 := N_3 - rN_3$

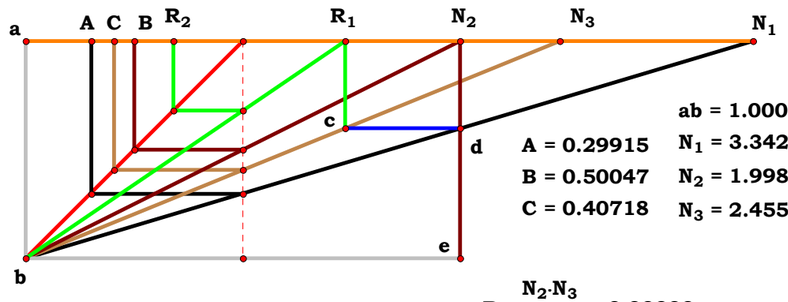
$R_1 = 1.468009$ $R_2 := \frac{1}{R_1}$

Definitions.

$R_1 - \frac{N_2 \cdot N_3}{N_1} = 0$

$N_1 - \frac{1}{A} = 0$ $N_2 - \frac{1}{B} = 0$ $N_3 - \frac{1}{C} = 0$

$R_1 - \frac{A}{B \cdot C} = 0$ $R_2 - \frac{B \cdot C}{A} = 0$



ab = 1.00000
A = 0.29915 N1 = 3.34279
B = 0.50047 N2 = 1.99813
C = 0.40718 N3 = 2.45592

$R_1 = 1.46801$

$\frac{N_2 \cdot N_3}{N_1} = 1.46801$

$\frac{A}{B \cdot C} = 1.46801$

$R_1 - \frac{N_2 \cdot N_3}{N_1} = 0.00000$

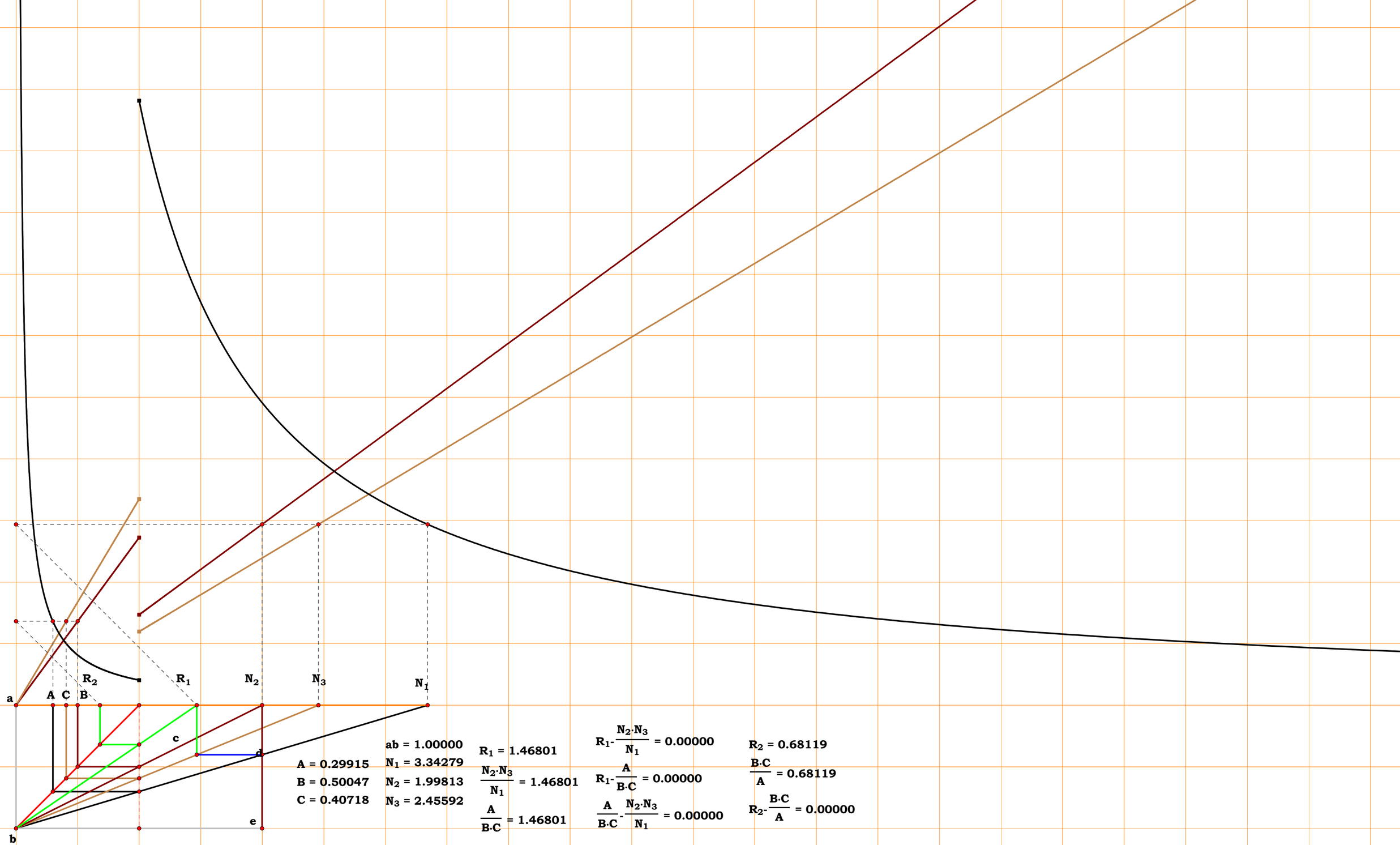
$R_1 - \frac{A}{B \cdot C} = 0.00000$

$\frac{A}{B \cdot C} - \frac{N_2 \cdot N_3}{N_1} = 0.00000$

$R_2 = 0.68119$

$\frac{B \cdot C}{A} = 0.68119$

$R_2 - \frac{B \cdot C}{A} = 0.00000$



$A = 0.29915$
$B = 0.50047$
$C = 0.40718$

$ab = 1.00000$
$N_1 = 3.34279$
$N_2 = 1.99813$
$N_3 = 2.45592$

$R_1 = 1.46801$

$\frac{N_2 \cdot N_3}{N_1} = 1.46801$

$\frac{A}{B \cdot C} = 1.46801$

$R_1 - \frac{N_2 \cdot N_3}{N_1} = 0.00000$

$R_1 - \frac{A}{B \cdot C} = 0.00000$

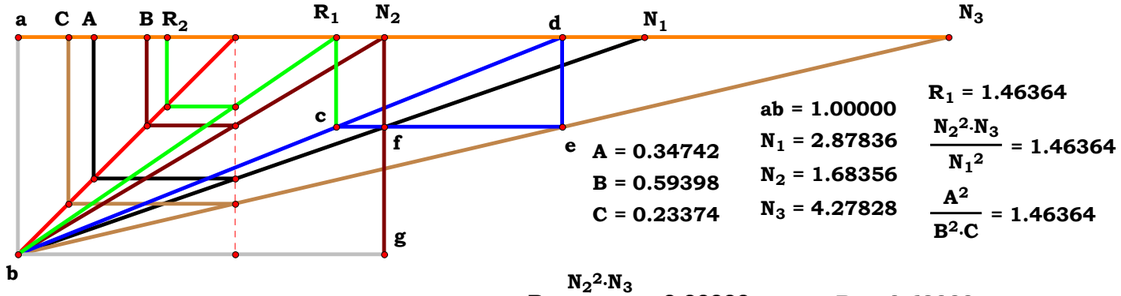
$\frac{A}{B \cdot C} - \frac{N_2 \cdot N_3}{N_1} = 0.00000$

$R_2 = 0.68119$

$\frac{B \cdot C}{A} = 0.68119$

$R_2 - \frac{B \cdot C}{A} = 0.00000$

1CST3R1



ab = 1.00000
N1 = 2.87836
N2 = 1.68356
N3 = 4.27828

A = 0.34742
B = 0.59398
C = 0.23374

$R_1 = 1.46364$

$\frac{N_2^2 \cdot N_3}{N_1^2} = 1.46364$

$\frac{A^2}{B^2 \cdot C} = 1.46364$

Given.

Unit. $ab := 1$ $N_1 := 2.87836$

$N_2 := 1.68356$ $N_3 := 4.27828$

$A := \frac{1}{N_1}$ $B := \frac{1}{N_2}$ $C := \frac{1}{N_3}$

Descriptions.

$ad := N_2 \cdot \frac{N_3}{N_1}$ $cR_1 := \frac{N_1 - N_2}{N_1}$

$dR_1 := ad \cdot cR_1$ $R_1 := ad - dR_1$

$R_1 = 1.463646$ $R_2 := \frac{1}{R_1}$

Definitions.

$R_1 - \frac{N_2^2 \cdot N_3}{N_1^2} = 0$

$N_1 - \frac{1}{A} = 0$ $N_2 - \frac{1}{B} = 0$ $N_3 - \frac{1}{C} = 0$

$R_1 - \frac{A^2}{B^2 \cdot C} = 0$ $R_2 - \frac{B^2 \cdot C}{A^2} = 0$

$R_1 - \frac{N_2^2 \cdot N_3}{N_1^2} = 0.00000$

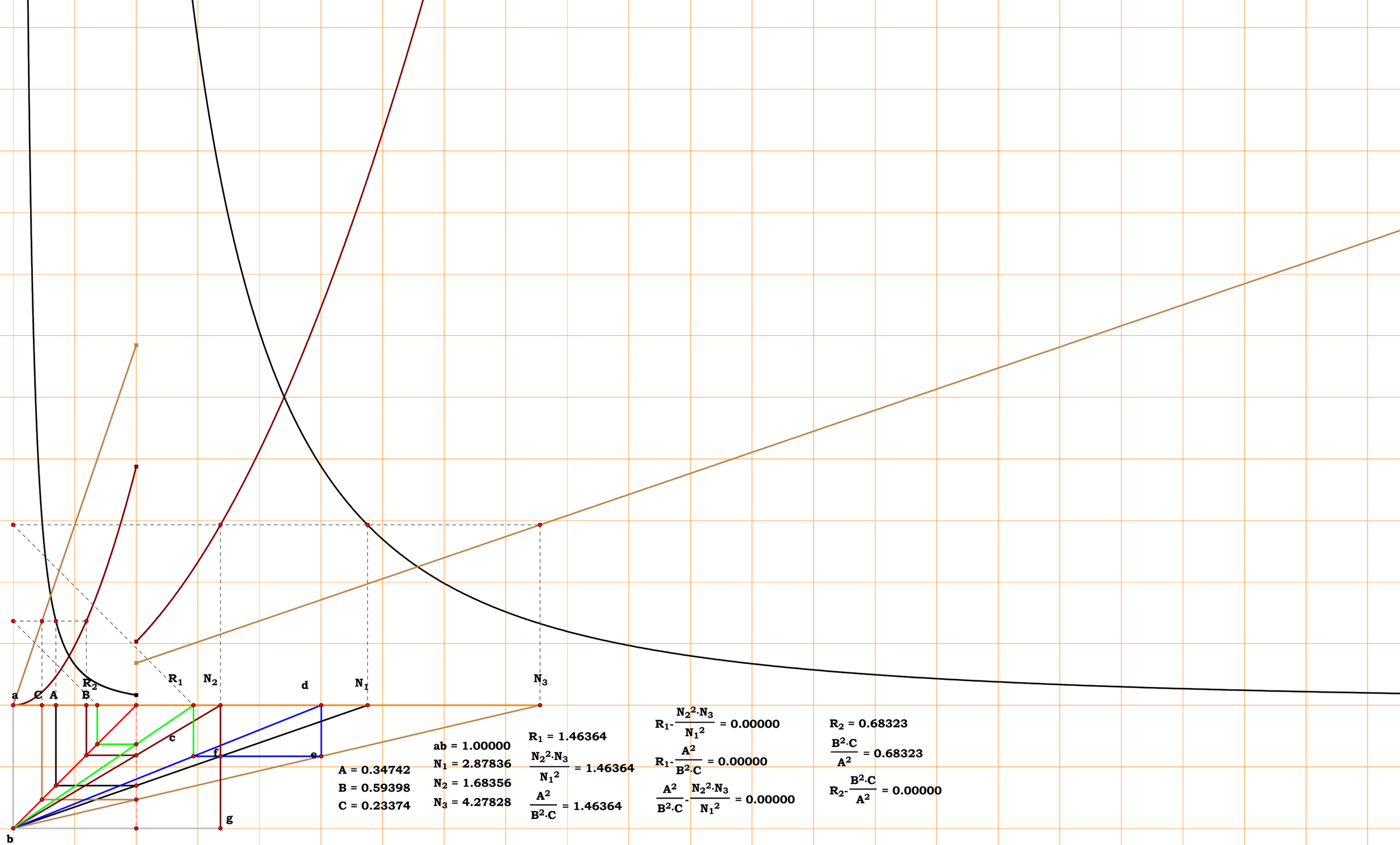
$R_1 - \frac{A^2}{B^2 \cdot C} = 0.00000$

$\frac{A^2}{B^2 \cdot C} - \frac{N_2^2 \cdot N_3}{N_1^2} = 0.00000$

$R_2 = 0.68323$

$\frac{B^2 \cdot C}{A^2} = 0.68323$

$R_2 - \frac{B^2 \cdot C}{A^2} = 0.00000$



A = 0.34742
B = 0.59398
C = 0.23374

ab = 1.00000
N_1 = 2.87836
N_2 = 1.68356
N_3 = 4.27828

$R_1 = 1.46364$

$\frac{N_2^2 \cdot N_3}{N_1^2} = 1.46364$

$\frac{A^2}{B^2 \cdot C} = 1.46364$

$R_1 - \frac{N_2^2 \cdot N_3}{N_1^2} = 0.00000$

$R_1 - \frac{A^2}{B^2 \cdot C} = 0.00000$

$\frac{A^2}{B^2 \cdot C} - \frac{N_2^2 \cdot N_3}{N_1^2} = 0.00000$

$R_2 = 0.68323$

$\frac{B^2 \cdot C}{A^2} = 0.68323$

$R_2 - \frac{B^2 \cdot C}{A^2} = 0.00000$

1CST3R2

Given.

Unit. $ab := 1$ $N_1 := 1.91661$

$N_2 := 1.31073$ $N_3 := 3.70270$

$A := \frac{1}{N_1}$ $B := \frac{1}{N_2}$ $C := \frac{1}{N_3}$

Descriptions.

$ad := \frac{N_2^{\,2} \cdot N_3}{N_1^{\,2}}$ $cR_1 := \frac{N_1 - N_2}{N_1}$

$dr := ad \cdot cR_1$ $R_1 := ad - dr$

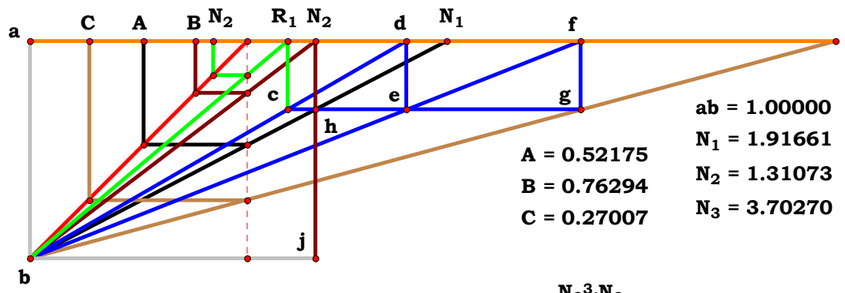
$R_1 = 1.184287$ $R_2 := \frac{1}{R_1}$

Definitions.

$R_1 - \frac{N_2^{\,3} \cdot N_3}{N_1^{\,3}} = 0$

$N_1 - \frac{1}{A} = 0$ $N_2 - \frac{1}{B} = 0$ $N_3 - \frac{1}{C} = 0$

$R_1 - \frac{A^3}{B^3 \cdot C} = 0$ $R_2 - \frac{B^3 \cdot C}{A^3} = 0$



$ab = 1.00000$

$N_1 = 1.91661$

$N_2 = 1.31073$

$N_3 = 3.70270$

$A = 0.52175$

$B = 0.76294$

$C = 0.27007$

$R_1 = 1.18427$

$\frac{N_2^{\,3} \cdot N_3}{N_1^{\,3}} = 1.18427$

$\frac{A^3}{B^3 \cdot C} = 1.18427$

$R_1 - \frac{N_2^{\,3} \cdot N_3}{N_1^{\,3}} = 0.00000$

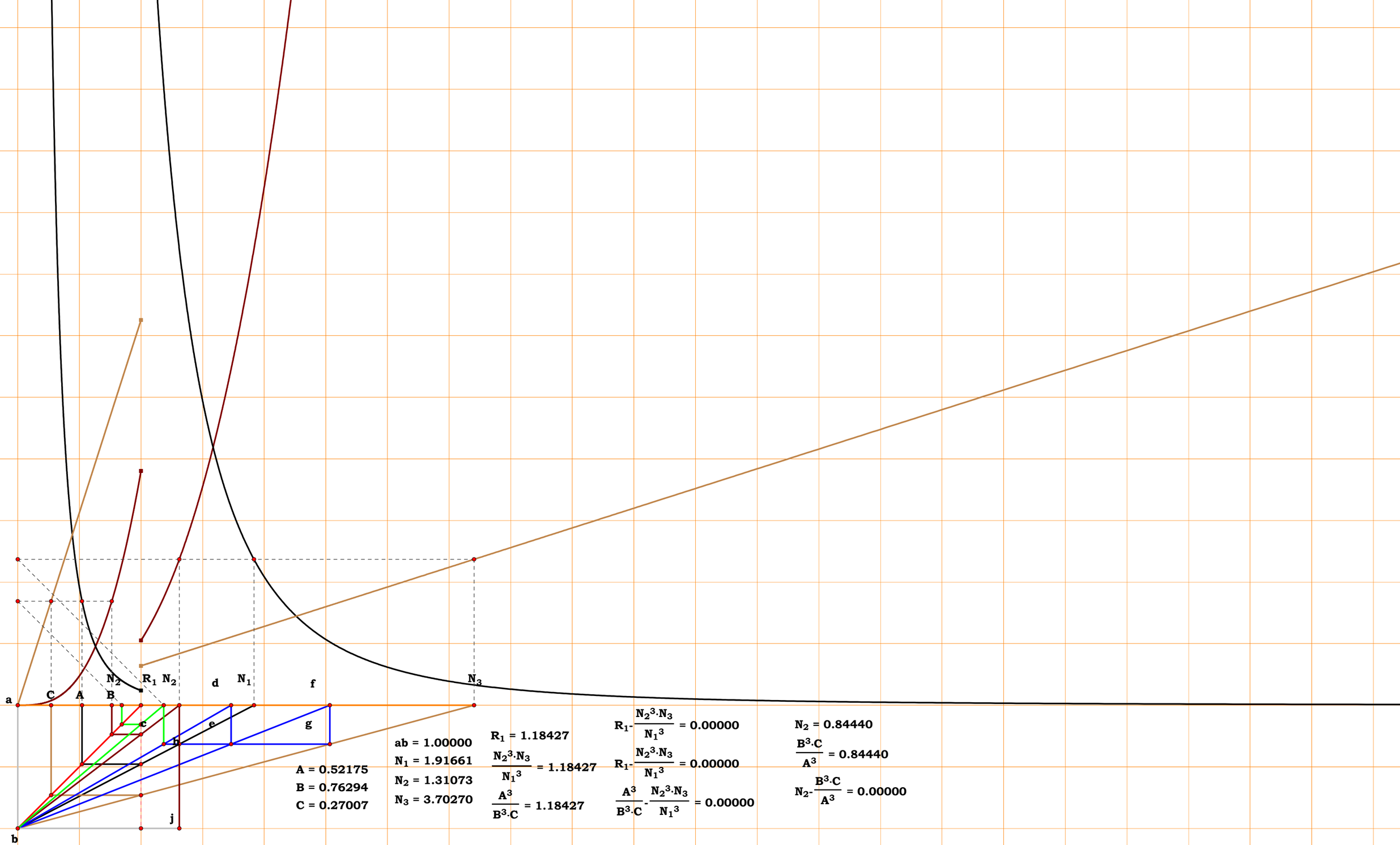
$R_1 - \frac{N_2^{\,3} \cdot N_3}{N_1^{\,3}} = 0.00000$

$\frac{A^3}{B^3 \cdot C} - \frac{N_2^{\,3} \cdot N_3}{N_1^{\,3}} = 0.00000$

$N_2 = 0.84440$

$\frac{B^3 \cdot C}{A^3} = 0.84440$

$N_2 - \frac{B^3 \cdot C}{A^3} = 0.00000$



A = 0.52175
B = 0.76294
C = 0.27007

ab = 1.00000
N_1 = 1.91661
N_2 = 1.31073
N_3 = 3.70270

$R_1 = 1.18427$

$\frac{N_2^3 \cdot N_3}{N_1^3} = 1.18427$

$\frac{A^3}{B^3 \cdot C} = 1.18427$

$R_1 - \frac{N_2^3 \cdot N_3}{N_1^3} = 0.00000$

$R_1 - \frac{N_2^3 \cdot N_3}{N_1^3} = 0.00000$

$\frac{A^3}{B^3 \cdot C} - \frac{N_2^3 \cdot N_3}{N_1^3} = 0.00000$

$N_2 = 0.84440$

$\frac{B^3 \cdot C}{A^3} = 0.84440$

$N_2 - \frac{B^3 \cdot C}{A^3} = 0.00000$

1CST3R3

Given.

Unit. $ab := 1$ $N_1 := 2.42893$

$N_2 := 1.55071$ $N_3 := 4.39317$

$A := \frac{1}{N_1}$ $B := \frac{1}{N_2}$ $C := \frac{1}{N_3}$

Descriptions.

$ad := \frac{N_2^{\,3} \cdot N_3}{N_1^{\,3}}$ $cd := \frac{N_1 - N_2}{N_1}$ $R_1 := \frac{ad}{cd}$

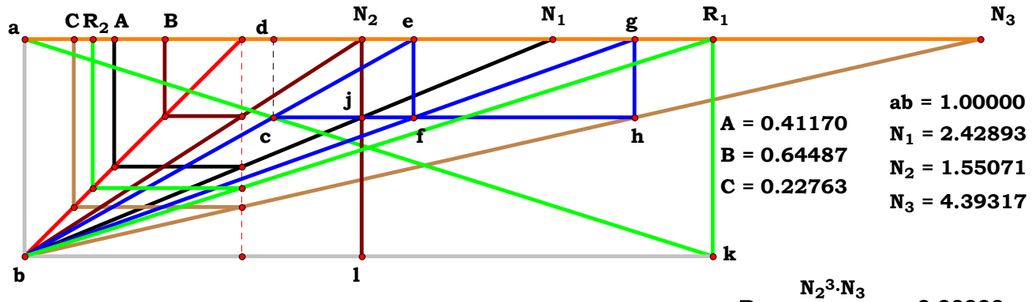
$R_1 = 3.161815$ $R_2 := \frac{1}{R_1}$

Definitions.

$$R_1 - \frac{N_2^{\,3} \cdot N_3}{N_1^{\,2} \cdot (N_1 - N_2)} = 0$$

$N_1 - \frac{1}{A} = 0$ $N_2 - \frac{1}{B} = 0$ $N_3 - \frac{1}{C} = 0$

$R_1 - \frac{A^3}{B^2 \cdot C \cdot (B - A)} = 0$ $R_2 - \frac{B^2 \cdot C \cdot (B - A)}{A^3} = 0$



A = 0.41170
B = 0.64487
C = 0.22763

ab = 1.00000
N_1 = 2.42893
N_2 = 1.55071
N_3 = 4.39317

$R_1 = 3.16181$

$\frac{N_2^{\,3} \cdot N_3}{N_1^{\,3} - N_1^{\,2} \cdot N_2} = 3.16181$

$\frac{A^3}{B^2 \cdot C \cdot (B-A)} = 3.16181$

$R_1 - \frac{N_2^{\,3} \cdot N_3}{N_1^{\,3} - N_1^{\,2} \cdot N_2} = 0.00000$

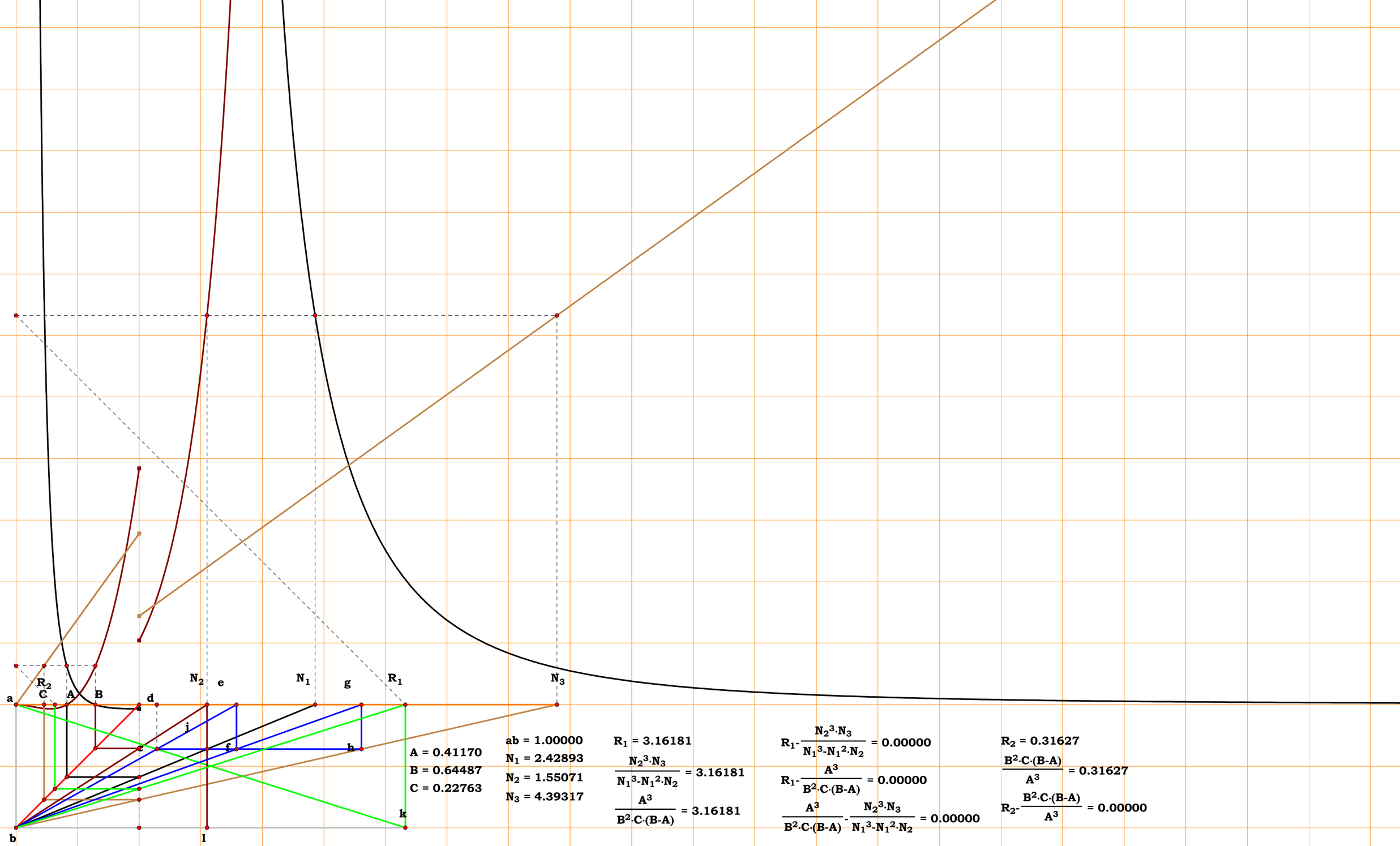
$R_1 - \frac{A^3}{B^2 \cdot C \cdot (B-A)} = 0.00000$

$\frac{A^3}{B^2 \cdot C \cdot (B-A)} - \frac{N_2^{\,3} \cdot N_3}{N_1^{\,3} - N_1^{\,2} \cdot N_2} = 0.00000$

$R_2 = 0.31627$

$\frac{B^2 \cdot C \cdot (B-A)}{A^3} = 0.31627$

$R_2 - \frac{B^2 \cdot C \cdot (B-A)}{A^3} = 0.00000$



$A = 0.41170$
$B = 0.64487$
$C = 0.22763$

$ab = 1.00000$
$N_1 = 2.42893$
$N_2 = 1.55071$
$N_3 = 4.39317$

$R_1 = 3.16181$

$$\frac{N_2^3 \cdot N_3}{N_1^3 - N_1^2 \cdot N_2} = 3.16181$$

$$\frac{A^3}{B^2 \cdot C \cdot (B-A)} = 3.16181$$

$$R_1 - \frac{N_2^3 \cdot N_3}{N_1^3 - N_1^2 \cdot N_2} = 0.00000$$

$$R_1 - \frac{A^3}{B^2 \cdot C \cdot (B-A)} = 0.00000$$

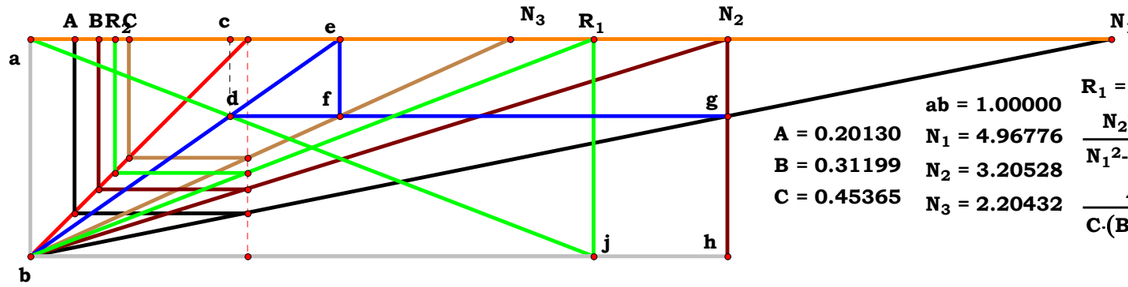
$$\frac{A^3}{B^2 \cdot C \cdot (B-A)} - \frac{N_2^3 \cdot N_3}{N_1^3 - N_1^2 \cdot N_2} = 0.00000$$

$R_2 = 0.31627$

$$\frac{B^2 \cdot C \cdot (B-A)}{A^3} = 0.31627$$

$$R_2 - \frac{B^2 \cdot C \cdot (B-A)}{A^3} = 0.00000$$

1CST3R4



ab = 1.00000
A = 0.20130
B = 0.31199
C = 0.45365
$N_1 = 4.96776$
$N_2 = 3.20528$
$N_3 = 2.20432$

$R_1 = 2.58656$

$\frac{N_2^2 \cdot N_3}{N_1^2 - N_1 \cdot N_2} = 2.58656$

$\frac{A^2}{C \cdot (B^2 - A \cdot B)} = 2.58656$

Given.

Unit. $ab := 1$ $N_1 := 4.96776$

$N_2 := 3.20528$ $N_3 := 2.20432$

$A := \frac{1}{N_1}$ $B := \frac{1}{N_2}$ $C := \frac{1}{N_3}$

Descriptions.

$cd := \frac{N_1 - N_2}{N_1}$ $ac := \frac{N_2^2 \cdot N_3}{N_1^2}$ $R_1 := \frac{ac}{cd}$

$R_1 = 2.586555$ $R_2 := \frac{1}{R_1}$

$R_1 - \frac{N_2^2 \cdot N_3}{N_1^2 - N_1 \cdot N_2} = 0.00000$

$R_1 - \frac{A^2}{C \cdot (B^2 - A \cdot B)} = 0.00000$

$\frac{A^2}{C \cdot (B^2 - A \cdot B)} - \frac{N_2^2 \cdot N_3}{N_1^2 - N_1 \cdot N_2} = 0.00000$

$R_2 = 0.38661$

$\frac{C \cdot (B^2 - A \cdot B)}{A^2} = 0.38661$

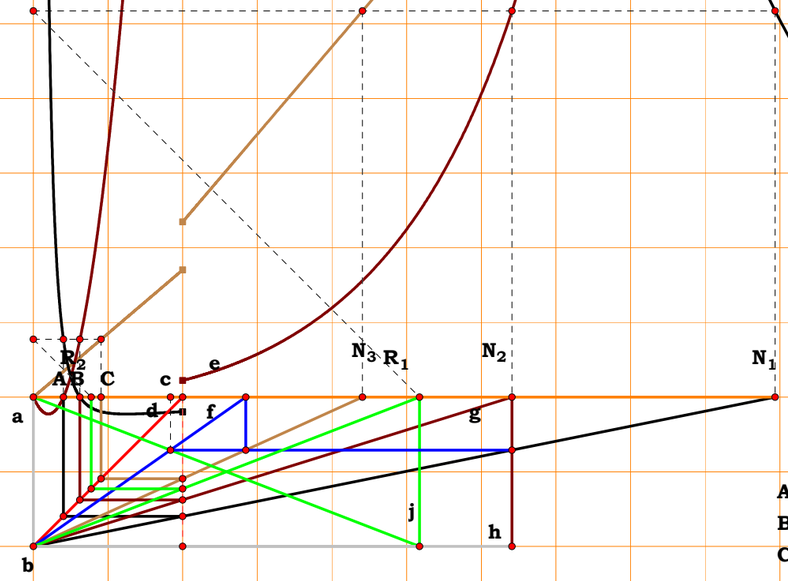
$R_2 - \frac{C \cdot (B^2 - A \cdot B)}{A^2} = 0.00000$

Definitions.

$R_1 - \frac{N_2^2 \cdot N_3}{N_1 \cdot (N_1 - N_2)} = 0$

$N_1 - \frac{1}{A} = 0$ $N_2 - \frac{1}{B} = 0$ $N_3 - \frac{1}{C} = 0$

$R_1 - \frac{A^2}{C \cdot (B^2 - A \cdot B)} = 1.77$ $R_2 - \frac{C \cdot (B^2 - A \cdot B)}{A^2} = 0$



A = 0.20130
B = 0.31199
C = 0.45365

ab = 1.00000
N_1 = 4.96776
N_2 = 3.20528
N_3 = 2.20432

$R_1 = 2.58656$

$$\frac{N_2^2 \cdot N_3}{N_1^2 - N_1 \cdot N_2} = 2.58656$$

$$\frac{A^2}{C \cdot (B^2 - A \cdot B)} = 2.58656$$

$$R_1 - \frac{N_2^2 \cdot N_3}{N_1^2 - N_1 \cdot N_2} = 0.00000$$

$$R_1 - \frac{A^2}{C \cdot (B^2 - A \cdot B)} = 0.00000$$

$$\frac{A^2}{C \cdot (B^2 - A \cdot B)} - \frac{N_2^2 \cdot N_3}{N_1^2 - N_1 \cdot N_2} = 0.00000$$

$R_2 = 0.38661$

$$\frac{C \cdot (B^2 - A \cdot B)}{A^2} = 0.38661$$

$$R_2 - \frac{C \cdot (B^2 - A \cdot B)}{A^2} = 0.00000$$

1CST3R5

Given.

Unit. $ab := 1$ $N_1 := 4.64493$

$N_2 := 2.01597$ $N_3 := 3.11737$

$A := \frac{1}{N_1}$ $B := \frac{1}{N_2}$ $C := \frac{1}{N_3}$

Descriptions.

$ac := \frac{N_2 \cdot N_3}{N_1}$ $cd := \frac{N_1 - N_2}{N_1}$ $R_1 := \frac{ac}{cd}$

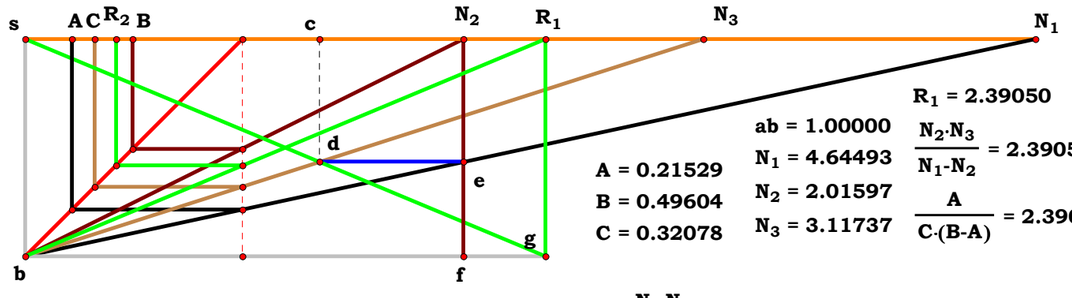
$R_1 = 2.390498$ $R_2 := \frac{1}{R_1}$

Definitions.

$R_1 - \frac{N_2 \cdot N_3}{N_1 - N_2} = 0$

$N_1 - \frac{1}{A} = 0$ $N_2 - \frac{1}{B} = 0$ $N_3 - \frac{1}{C} = 0$

$R_1 - \frac{A}{C \cdot (B - A)} = 0$ $R_2 - \frac{C \cdot (B - A)}{A} = 0$



$A = 0.21529$
$B = 0.49604$
$C = 0.32078$

$ab = 1.00000$
$N_1 = 4.64493$
$N_2 = 2.01597$
$N_3 = 3.11737$

$R_1 = 2.39050$

$\frac{N_2 \cdot N_3}{N_1 - N_2} = 2.39050$

$\frac{A}{C \cdot (B-A)} = 2.39050$

$R_1 - \frac{N_2 \cdot N_3}{N_1 - N_2} = 0.00000$

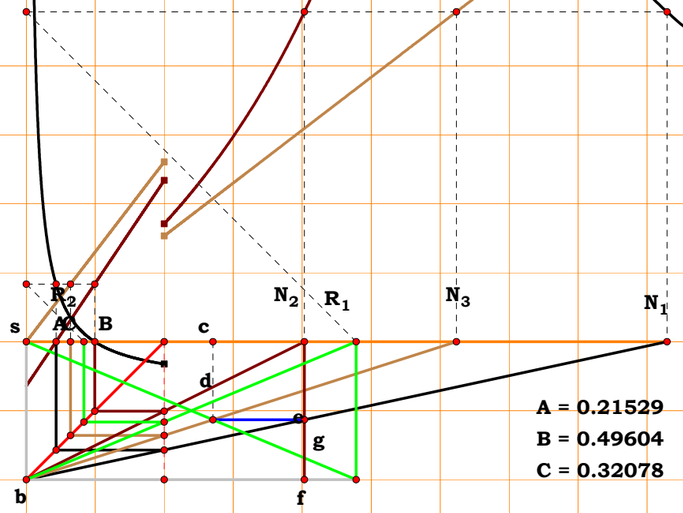
$R_1 - \frac{A}{C \cdot (B-A)} = 0.00000$

$\frac{A}{C \cdot (B-A)} - \frac{N_2 \cdot N_3}{N_1 - N_2} = 0.00000$

$R_2 = 0.41832$

$\frac{C \cdot (B-A)}{A} = 0.41832$

$R_2 - \frac{C \cdot (B-A)}{A} = 0.00000$



$A = 0.21529$
$B = 0.49604$
$C = 0.32078$

$ab = 1.00000$
$N_1 = 4.64493$
$N_2 = 2.01597$
$N_3 = 3.11737$

$R_1 = 2.39050$

$\frac{N_2 \cdot N_3}{N_1 - N_2} = 2.39050$

$\frac{A}{C \cdot (B-A)} = 2.39050$

$R_1 - \frac{N_2 \cdot N_3}{N_1 - N_2} = 0.00000$

$R_1 - \frac{A}{C \cdot (B-A)} = 0.00000$

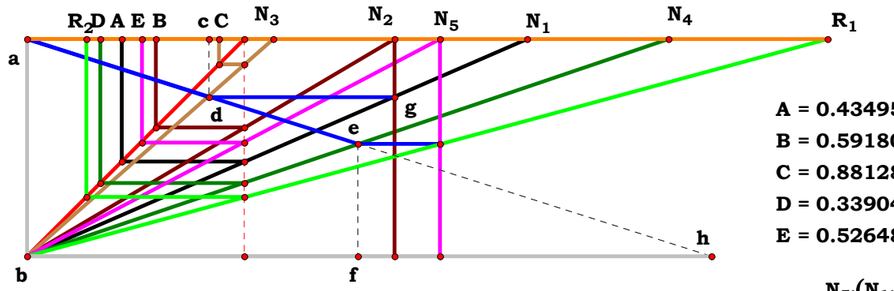
$\frac{A}{C \cdot (B-A)} - \frac{N_2 \cdot N_3}{N_1 - N_2} = 0.00000$

$R_2 = 0.41832$

$\frac{C \cdot (B-A)}{A} = 0.41832$

$R_2 - \frac{C \cdot (B-A)}{A} = 0.00000$

1CST3R6



Given.

Unit. $ab := 1$ $N_1 := 2.29912$

$N_2 := 1.68975$ $N_3 := 1.13472$

$N_4 := 2.94955$ $N_5 := 1.89941$

$$A := \frac{1}{N_1} \quad B := \frac{1}{N_2} \quad C := \frac{1}{N_3} \quad D := \frac{1}{N_4} \quad E := \frac{1}{N_5}$$

Descriptions.

$$gN_2 := 1 - \frac{N_2}{N_1} \qquad cN_3 := N_3 \cdot gN_2$$

$$ac := N_3 - cN_3 \qquad bh := \frac{ac}{gN_2}$$

$$bf := \frac{bh \cdot N_4}{bh + N_4} \qquad ef := \frac{bf}{N_4} \qquad R_1 := \frac{N_5}{ef}$$

$R_1 = 3.67992$ $\qquad R_2 := \frac{1}{R_1}$

Definitions.

$$R_1 - \frac{N_5 \cdot \left[N_1 \cdot N_4 + N_2 \cdot \left(N_3 - N_4\right)\right]}{N_2 \cdot N_3} = 0$$

$$N_1 - \frac{1}{A} = 0 \qquad N_2 - \frac{1}{B} = 0 \qquad N_3 - \frac{1}{C} = 0$$

$$N_4 - \frac{1}{D} = 0 \qquad N_5 - \frac{1}{E} = 0$$

$$R_1 - \frac{(A \cdot D - A \cdot C + B \cdot C)}{A \cdot D \cdot E} = 0 \qquad R_2 - \frac{A \cdot D \cdot E}{(A \cdot D - A \cdot C + B \cdot C)} = 0$$

$A = 0.43495$ $\quad ab = 1.00000$

$B = 0.59180$ $\quad N_1 = 2.29912$

$C = 0.88128$ $\quad N_2 = 1.68975$

$D = 0.33904$ $\quad N_3 = 1.13472$

$E = 0.52648$ $\quad N_4 = 2.94955$

$N_5 = 1.89941$

$R_1 = 3.67991$

$$\frac{N_5 \cdot (N_1 \cdot N_4 + N_2 \cdot (N_3 - N_4))}{N_2 \cdot N_3} = 3.67991$$

$$\frac{(A \cdot D - A \cdot C) + B \cdot C}{A \cdot D \cdot E} = 3.67991$$

$$R_1 - \frac{N_5 \cdot (N_1 \cdot N_4 + N_2 \cdot (N_3 - N_4))}{N_2 \cdot N_3} = 0.00000$$

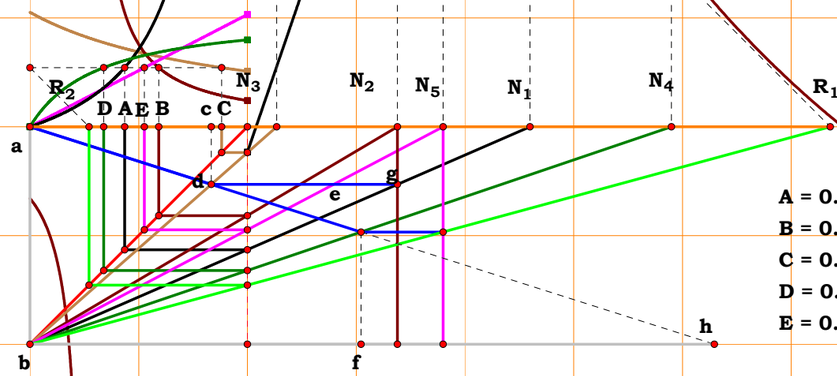
$$R_1 - \frac{(A \cdot D - A \cdot C) + B \cdot C}{A \cdot D \cdot E} = 0.00000$$

$$\frac{(A \cdot D - A \cdot C) + B \cdot C}{A \cdot D \cdot E} - \frac{N_5 \cdot (N_1 \cdot N_4 + N_2 \cdot (N_3 - N_4))}{N_2 \cdot N_3} = 0.00000$$

$R_2 = 0.27175$

$$\frac{A \cdot D \cdot E}{(A \cdot D - A \cdot C) + B \cdot C} = 0.27175$$

$$R_2 - \frac{A \cdot D \cdot E}{(A \cdot D - A \cdot C) + B \cdot C} = 0.00000$$



A = 0.43495
B = 0.59180
C = 0.88128
D = 0.33904
E = 0.52648

ab = 1.00000
N_1 = 2.29912
N_2 = 1.68975
N_3 = 1.13472
N_4 = 2.94955
N_5 = 1.89941

$R_1 = 3.67991$

$$\frac{N_5\cdot(N_1\cdot N_4+N_2\cdot(N_3-N_4))}{N_2\cdot N_3} = 3.67991$$

$$\frac{(A\cdot D-A\cdot C)+B\cdot C}{A\cdot D\cdot E} = 3.67991$$

$$R_1-\frac{N_5\cdot(N_1\cdot N_4+N_2\cdot(N_3-N_4))}{N_2\cdot N_3} = 0.00000$$

$$R_1-\frac{(A\cdot D-A\cdot C)+B\cdot C}{A\cdot D\cdot E} = 0.00000$$

$$\frac{(A\cdot D-A\cdot C)+B\cdot C}{A\cdot D\cdot E}-\frac{N_5\cdot(N_1\cdot N_4+N_2\cdot(N_3-N_4))}{N_2\cdot N_3} = 0.00000$$

$R_2 = 0.27175$

$$\frac{A\cdot D\cdot E}{(A\cdot D-A\cdot C)+B\cdot C} = 0.27175$$

$$R_2-\frac{A\cdot D\cdot E}{(A\cdot D-A\cdot C)+B\cdot C} = 0.00000$$

1CST4R0

Given.

Unit. $ab := 1$ $N_1 := 2.73480$

$N_2 := 1.77372$ $N_3 := 4.46042$

$A := \frac{1}{N_1}$ $B := \frac{1}{N_2}$ $C := \frac{1}{N_3}$

Descriptions.

$dN_2 := 1 - \frac{N_2}{N_1}$ $R_1 := N_3 \cdot dN_2$

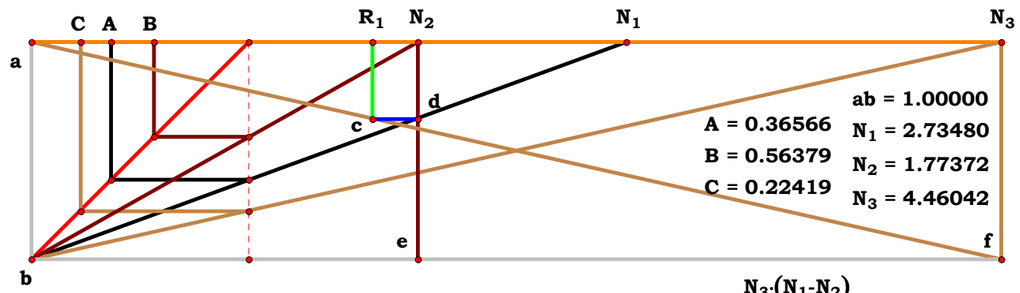
$R_1 = 1.567508$

Definitions.

$R_1 - \frac{N_3 \cdot (N_1 - N_2)}{N_1} = 0$

$N_1 - \frac{1}{A} = 0$ $N_2 - \frac{1}{B} = 0$ $N_3 - \frac{1}{C} = 0$

$R_1 - \frac{(B - A)}{B \cdot C} = 0$



ab = 1.00000
A = 0.36566
B = 0.56379
C = 0.22419
N1 = 2.73480
N2 = 1.77372
N3 = 4.46042

$R_1 = 1.56751$

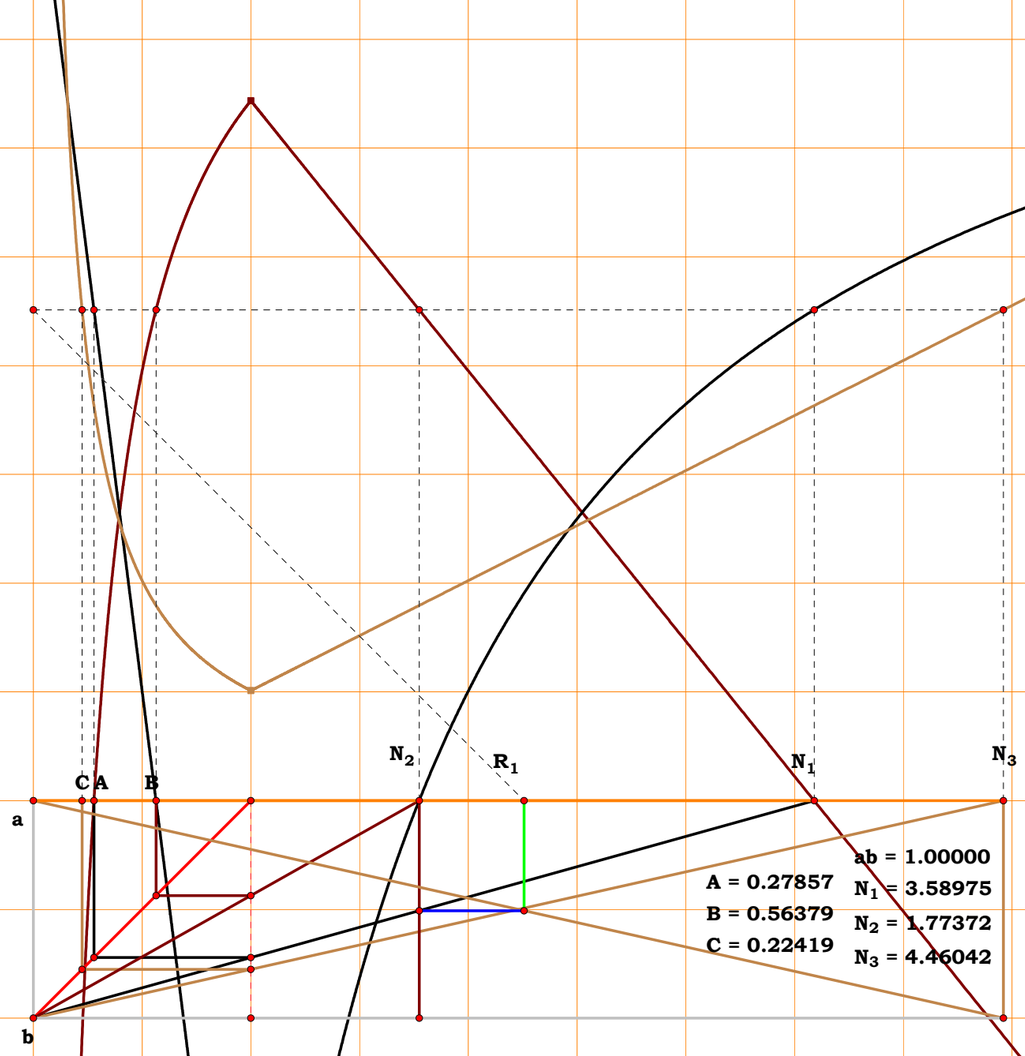
$\frac{N_3 \cdot (N_1 - N_2)}{N_1} = 1.56751$

$\frac{B-A}{B \cdot C} = 1.56751$

$R_1 - \frac{N_3 \cdot (N_1 - N_2)}{N_1} = 0.00000$

$R_1 - \frac{B-A}{B \cdot C} = 0.00000$

$\frac{B-A}{B \cdot C} - \frac{N_3 \cdot (N_1 - N_2)}{N_1} = 0.00000$



ab = 1.00000
A = 0.27857
B = 0.56379
C = 0.22419
N_1 = 3.58975
N_2 = 1.77372
N_3 = 4.46042

R_1 = 2.25649

$\frac{N_3\cdot(N_1-N_2)}{N_1}$ = 2.25649

$\frac{B-A}{B\cdot C}$ = 2.25649

$R_1-\frac{N_3\cdot(N_1-N_2)}{N_1}$ = 0.00000

$R_1-\frac{B-A}{B\cdot C}$ = 0.00000

$\frac{B-A}{B\cdot C}-\frac{N_3\cdot(N_1-N_2)}{N_1}$ = 0.00000

1CST4R1

Given.

Unit. $ab := 1$ $N_1 := 5.43071$

$N_2 := 2.25405$ $N_3 := 3.17402$

$$A := \frac{1}{N_1} \quad B := \frac{1}{N_2} \quad C := \frac{1}{N_3}$$

Descriptions.

$$cd := \frac{N_1 - N_2}{N_1} \qquad ac := \frac{N_3 \cdot (N_1 - N_2)}{N_1}$$

$$R_1 := \frac{ac}{1 - cd}$$

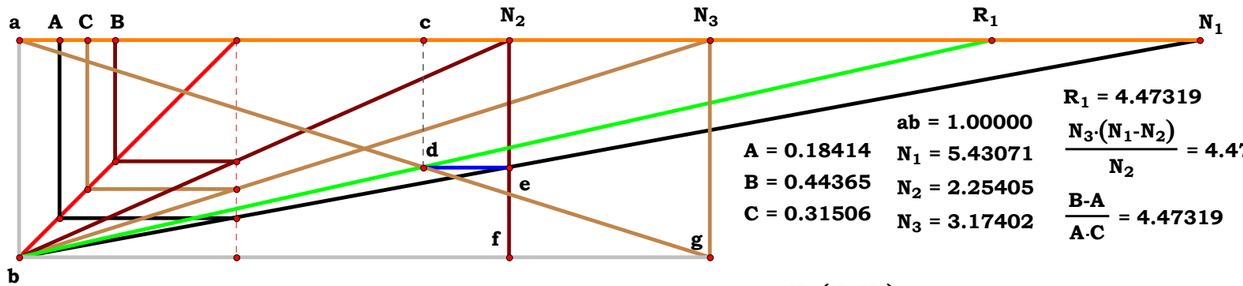
$R_1 = 4.473185$

Definitions.

$$R_1 - \frac{N_3 \cdot (N_1 - N_2)}{N_2} = 0$$

$$N_1 - \frac{1}{A} = 0 \qquad N_2 - \frac{1}{B} = 0 \qquad N_3 - \frac{1}{C} = 0$$

$$R_1 - \frac{(B - A)}{A \cdot C} = 0$$



A = 0.18414
B = 0.44365
C = 0.31506

ab = 1.00000
N_1 = 5.43071
N_2 = 2.25405
N_3 = 3.17402

$R_1 = 4.47319$

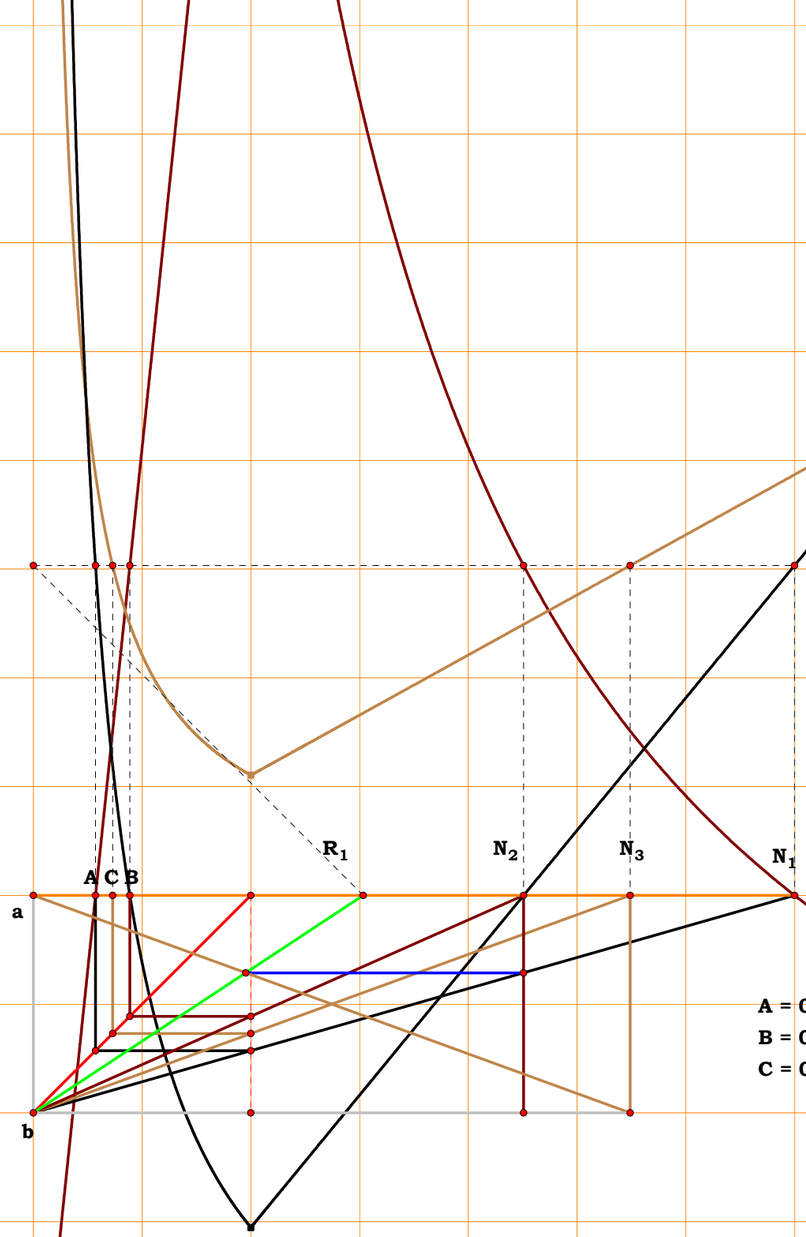
$$\frac{N_3 \cdot (N_1 - N_2)}{N_2} = 4.47319$$

$$\frac{B-A}{A \cdot C} = 4.47319$$

$$R_1 - \frac{N_3 \cdot (N_1 - N_2)}{N_2} = 0.00000$$

$$R_1 - \frac{B-A}{A \cdot C} = 0.00000$$

$$\frac{B-A}{A \cdot C} - \frac{N_3 \cdot (N_1 - N_2)}{N_2} = 0.00000$$



A = 0.28574
B = 0.44365
C = 0.36441

ab = 1.00000
N_1 = 3.49971
N_2 = 2.25405
N_3 = 2.74419

$R_1 = 1.51653$

$\frac{N_3 \cdot (N_1 - N_2)}{N_2} = 1.51653$

$\frac{B-A}{A \cdot C} = 1.51653$

$R_1 - \frac{N_3 \cdot (N_1 - N_2)}{N_2} = 0.00000$

$R_1 - \frac{B-A}{A \cdot C} = 0.00000$

$\frac{B-A}{A \cdot C} - \frac{N_3 \cdot (N_1 - N_2)}{N_2} = 0.00000$

1CST4R2

Given.

Unit. $ab := 1$ $N_1 := 4.15436$

$N_2 := 3.18798$ $N_3 := 2.68162$

$N_4 := 1.41721$ $N_5 := 1.90952$

$$A := \frac{1}{N_1} \quad B := \frac{1}{N_2} \quad C := \frac{1}{N_3} \quad D := \frac{1}{N_4} \quad E := \frac{1}{N_5}$$

Descriptions.

$$gN_2 := 1 - \frac{N_2}{N_1} \qquad ac := N_3 \cdot gN_2$$

$$cd := \frac{N_4 - ac}{N_4} \qquad bf := N_5 \cdot cd$$

$$R_1 := \frac{bf}{1 - cd} \qquad R_1 = 2.428758$$

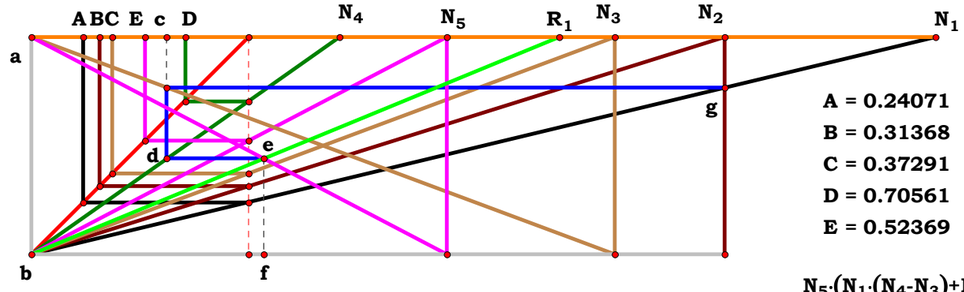
Definitions.

$$R_1 - \frac{N_5 \cdot \left[N_1 \cdot \left(N_4 - N_3\right) + N_2 \cdot N_3\right]}{N_3 \cdot \left(N_1 - N_2\right)} = 0$$

$$N_1 - \frac{1}{A} = 0 \qquad N_2 - \frac{1}{B} = 0$$

$$N_3 - \frac{1}{C} = 0 \qquad N_4 - \frac{1}{D} = 0 \qquad N_5 - \frac{1}{E} = 0$$

$$R_1 - \frac{(A \cdot D + B \cdot C - B \cdot D)}{D \cdot E \cdot (B - A)} = 0$$



ab = 1.00000

A = 0.24071 N_1 = 4.15436

B = 0.31368 N_2 = 3.18798

C = 0.37291 N_3 = 2.68162

D = 0.70561 N_4 = 1.41721

E = 0.52369 N_5 = 1.90952

$R_1 = 2.42872$

$$\frac{N_5 \cdot (N_1 \cdot (N_4 - N_3) + N_2 \cdot N_3)}{N_3 \cdot (N_1 - N_2)} = 2.42872$$

$$\frac{(A \cdot D + B \cdot C) - B \cdot D}{D \cdot E \cdot (B - A)} = 2.42872$$

$$R_1 - \frac{N_5 \cdot (N_1 \cdot (N_4 - N_3) + N_2 \cdot N_3)}{N_3 \cdot (N_1 - N_2)} = 0.00000$$

$$R_1 - \frac{(A \cdot D + B \cdot C) - B \cdot D}{D \cdot E \cdot (B - A)} = 0.00000$$

$$\frac{(A \cdot D + B \cdot C) - B \cdot D}{D \cdot E \cdot (B - A)} - \frac{N_5 \cdot (N_1 \cdot (N_4 - N_3) + N_2 \cdot N_3)}{N_3 \cdot (N_1 - N_2)} = 0.00000$$

ab = 1.00000

A = 0.24071
B = 0.31368
C = 0.37291
D = 0.70561
E = 0.52369

N_1 = 4.15436
N_2 = 3.18798
N_3 = 2.68162
N_4 = 1.41721
N_5 = 1.90952

R_1 = 2.42872

$$\frac{N_5\cdot(N_1\cdot(N_4-N_3)+N_2\cdot N_3)}{N_3\cdot(N_1-N_2)} = 2.42872$$

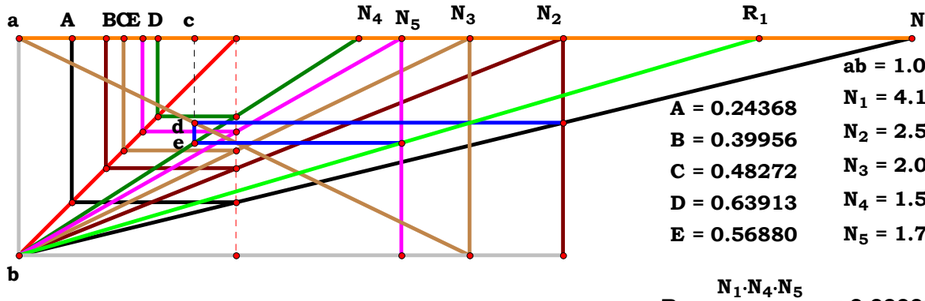
$$\frac{(A\cdot D+B\cdot C)-B\cdot D}{D\cdot E\cdot(B-A)} = 2.42872$$

$$R_1-\frac{N_5\cdot(N_1\cdot(N_4-N_3)+N_2\cdot N_3)}{N_3\cdot(N_1-N_2)} = 0.00000$$

$$R_1-\frac{(A\cdot D+B\cdot C)-B\cdot D}{D\cdot E\cdot(B-A)} = 0.00000$$

$$\frac{(A\cdot D+B\cdot C)-B\cdot D}{D\cdot E\cdot(B-A)}-\frac{N_5\cdot(N_1\cdot(N_4-N_3)+N_2\cdot N_3)}{N_3\cdot(N_1-N_2)} = 0.00000$$

1CST4R3



ab = 1.00000
A = 0.24368
B = 0.39956
C = 0.48272
D = 0.63913
E = 0.56880
N_1 = 4.10374
N_2 = 2.50277
N_3 = 2.07159
N_4 = 1.56463
N_5 = 1.75809

R_1 = 3.40365

$$\frac{N_1 \cdot N_4 \cdot N_5}{N_1 \cdot N_3 - N_2 \cdot N_3} = 3.40365$$

$$\frac{B \cdot C}{D \cdot E \cdot (B - A)} = 3.40365$$

$$R_1 - \frac{N_1 \cdot N_4 \cdot N_5}{N_1 \cdot N_3 - N_2 \cdot N_3} = 0.00000$$

$$R_1 - \frac{B \cdot C}{D \cdot E \cdot (B - A)} = 0.00000$$

$$\frac{B \cdot C}{D \cdot E \cdot (B - A)} - \frac{N_1 \cdot N_4 \cdot N_5}{N_1 \cdot N_3 - N_2 \cdot N_3} = 0.00000$$

Given.

Unit. $ab := 1$ $N_1 := 4.10374$

$N_2 := 2.50277$ $N_3 := 2.07159$

$N_4 := 1.56463$ $N_5 := 1.75809$

$$A := \frac{1}{N_1} \quad B := \frac{1}{N_2} \quad C := \frac{1}{N_3} \quad D := \frac{1}{N_4} \quad E := \frac{1}{N_5}$$

Descriptions.

$$cd := 1 - \frac{N_2}{N_1} \qquad ac := N_3 \cdot cd$$

$$ce := \frac{N_4 - ac}{N_4} \qquad R_1 := \frac{N_5}{1 - ce}$$

$R_1 = 3.403655$

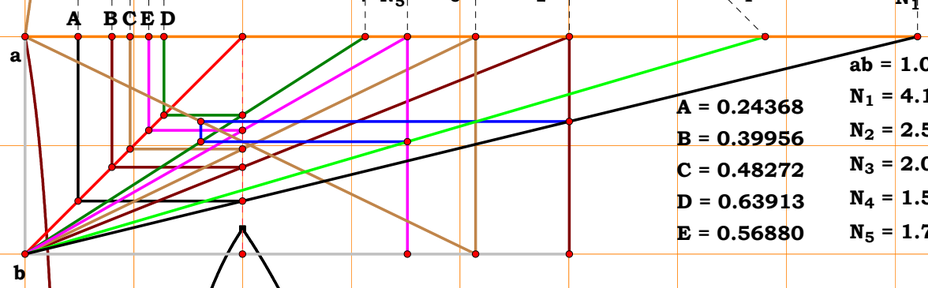
Definitions.

$$R_1 - \frac{N_1 \cdot N_4 \cdot N_5}{N_1 \cdot N_3 - N_2 \cdot N_3} = 0$$

$$N_1 - \frac{1}{A} = 0 \qquad N_2 - \frac{1}{B} = 0 \qquad N_3 - \frac{1}{C} = 0$$

$$N_4 - \frac{1}{D} = 0 \qquad N_5 - \frac{1}{E} = 0$$

$$R_1 - \frac{B \cdot C}{D \cdot E \cdot (B - A)} = 0$$



ab = 1.00000
N_1 = 4.10374
N_2 = 2.50277
N_3 = 2.07159
N_4 = 1.56463
N_5 = 1.75809

A = 0.24368
B = 0.39956
C = 0.48272
D = 0.63913
E = 0.56880

$R_1 = 3.40365$

$$\frac{N_1 \cdot N_4 \cdot N_5}{N_1 \cdot N_3 - N_2 \cdot N_3} = 3.40365$$

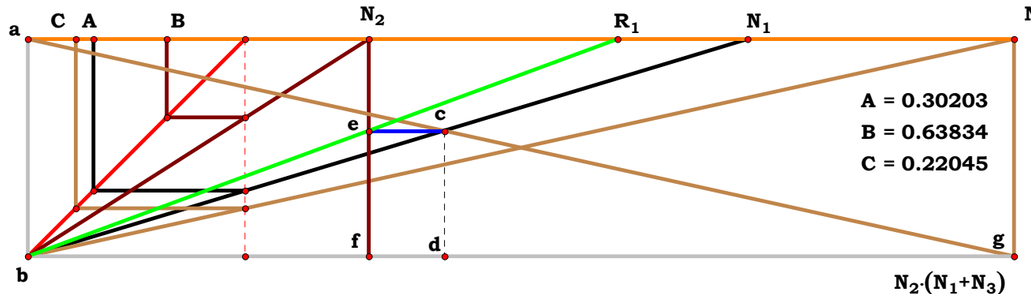
$$\frac{B \cdot C}{D \cdot E \cdot (B-A)} = 3.40365$$

$$R_1 - \frac{N_1 \cdot N_4 \cdot N_5}{N_1 \cdot N_3 - N_2 \cdot N_3} = 0.00000$$

$$R_1 - \frac{B \cdot C}{D \cdot E \cdot (B-A)} = 0.00000$$

$$\frac{B \cdot C}{D \cdot E \cdot (B-A)} - \frac{N_1 \cdot N_4 \cdot N_5}{N_1 \cdot N_3 - N_2 \cdot N_3} = 0.00000$$

1CST4R4



A = 0.30203
B = 0.63834
C = 0.22045

ab = 1.00000
N_1 = 3.31092
N_2 = 1.56656
N_3 = 4.53608

R_1 = 2.71001

$\frac{N_2\cdot(N_1+N_3)}{N_3}$ = 2.71001

$\frac{A+C}{A\cdot B}$ = 2.71001

$R_1-\frac{N_2\cdot(N_1+N_3)}{N_3}$ = 0.00000

$R_1-\frac{A+C}{A\cdot B}$ = 0.00000

$\frac{A+C}{A\cdot B}-\frac{N_2\cdot(N_1+N_3)}{N_3}$ = 0.00000

Given.

Unit. $ab := 1$ $N_1 := 3.31092$

$N_2 := 1.56656$ $N_3 := 4.53608$

$A := \frac{1}{N_1}$ $B := \frac{1}{N_2}$ $C := \frac{1}{N_3}$

Descriptions.

$cd := \frac{N_3}{N_1 + N_3}$ $R_1 := \frac{N_2}{cd}$

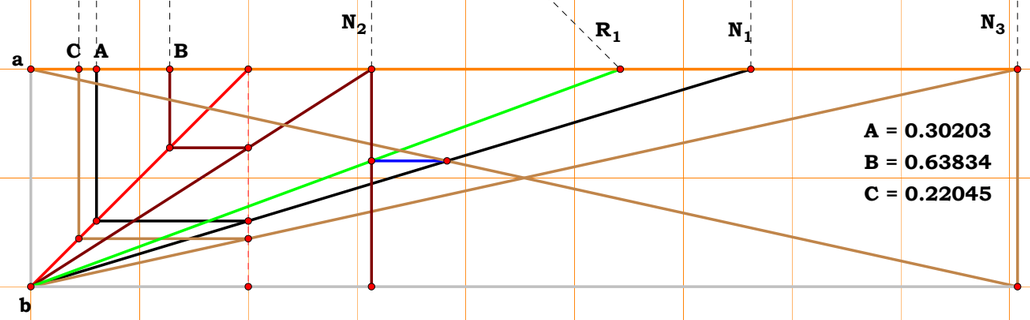
$R_1 = 2.710004$

Definitions.

$R_1 - \frac{N_2\cdot(N_1 + N_3)}{N_3} = 0$

$N_1 - \frac{1}{A} = 0$ $N_2 - \frac{1}{B} = 0$ $N_3 - \frac{1}{C} = 0$

$R_1 - \frac{(A + C)}{A\cdot B} = 0$



A = 0.30203
B = 0.63834
C = 0.22045

ab = 1.00000
N_1 = 3.31092
N_2 = 1.56656
N_3 = 4.53608

$R_1 = 2.71001$

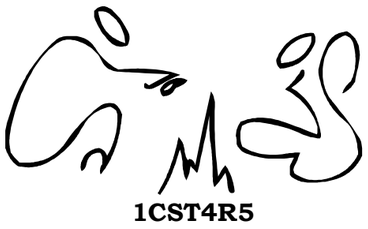
$$\frac{N_2\cdot(N_1+N_3)}{N_3} = 2.71001$$

$$\frac{A+C}{A\cdot B} = 2.71001$$

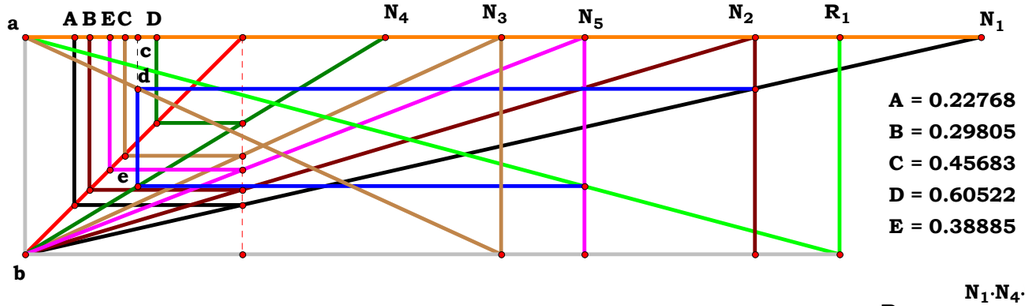
$$R_1-\frac{N_2\cdot(N_1+N_3)}{N_3} = 0.00000$$

$$R_1-\frac{A+C}{A\cdot B} = 0.00000$$

$$\frac{A+C}{A\cdot B}-\frac{N_2\cdot(N_1+N_3)}{N_3} = 0.00000$$



1CST4R5



A = 0.22768
B = 0.29805
C = 0.45683
D = 0.60522
E = 0.38885

ab = 1.00000
N_1 = 4.39209
N_2 = 3.35517
N_3 = 2.18899
N_4 = 1.65230
N_5 = 2.57170

R_1 = 3.74214

$$\frac{N_1 \cdot N_4 \cdot N_5}{N_1 \cdot N_4 - N_3 \cdot (N_1 - N_2)} = 3.74214$$

$$\frac{B \cdot C}{E \cdot ((A \cdot D + B \cdot C) - B \cdot D)} = 3.74214$$

Given.

Unit. $ab := 1$ $N_1 := 4.39209$

$N_2 := 3.35517$ $N_3 := 2.18899$

$N_4 := 1.65230$ $N_5 := 2.57170$

$$A := \frac{1}{N_1} \quad B := \frac{1}{N_2} \quad C := \frac{1}{N_3} \quad D := \frac{1}{N_4} \quad E := \frac{1}{N_5}$$

Descriptions.

$$cd := 1 - \frac{N_2}{N_1} \qquad ac := N_3 \cdot cd$$

$$ce := \frac{N_4 - ac}{N_4} \qquad R_1 := \frac{N_5}{ce}$$

$R_1 = 3.742139$

Definitions.

$$R_1 - \frac{N_1 \cdot N_4 \cdot N_5}{N_1 \cdot N_4 - N_3 \cdot (N_1 - N_2)} = 0$$

$$N_1 - \frac{1}{A} = 0 \qquad N_2 - \frac{1}{B} = 0$$

$$N_3 - \frac{1}{C} = 0 \qquad N_4 - \frac{1}{D} = 0 \qquad N_5 - \frac{1}{E} = 0$$

$$R_1 - \frac{B \cdot C}{E \cdot (A \cdot D + B \cdot C - B \cdot D)} = 0$$

$$R_1 - \frac{N_1 \cdot N_4 \cdot N_5}{N_1 \cdot N_4 - N_3 \cdot (N_1 - N_2)} = 0.00000$$

$$R_1 - \frac{B \cdot C}{E \cdot ((A \cdot D + B \cdot C) - B \cdot D)} = 0.00000$$

$$\frac{B \cdot C}{E \cdot ((A \cdot D + B \cdot C) - B \cdot D)} - \frac{N_1 \cdot N_4 \cdot N_5}{N_1 \cdot N_4 - N_3 \cdot (N_1 - N_2)} = 0.00000$$

	ab = 1.00000	$R_1 = 3.74214$	$R_1-\frac{N_1\cdot N_4\cdot N_5}{N_1\cdot N_4-N_3\cdot(N_1-N_2)} = 0.00000$
A = 0.22768	N_1 = 4.39209	$\frac{N_1\cdot N_4\cdot N_5}{N_1\cdot N_4-N_3\cdot(N_1-N_2)} = 3.74214$	$R_1-\frac{B\cdot C}{E\cdot((A\cdot D+B\cdot C)-B\cdot D)} = 0.00000$
B = 0.29805	N_2 = 3.35517	$\frac{B\cdot C}{E\cdot((A\cdot D+B\cdot C)-B\cdot D)} = 3.74214$	$\frac{B\cdot C}{E\cdot((A\cdot D+B\cdot C)-B\cdot D)}-\frac{N_1\cdot N_4\cdot N_5}{N_1\cdot N_4-N_3\cdot(N_1-N_2)} = 0.00000$
C = 0.45683	N_3 = 2.18899		
D = 0.60522	N_4 = 1.65230		
E = 0.38885	N_5 = 2.57170		

1CST4R6

Given.

Unit. $ab := 1$ $N_1 := 4.43356$

$N_2 := 2.11714$ $N_3 := 2.57080$

$A := \frac{1}{N_1}$ $B := \frac{1}{N_2}$ $C := \frac{1}{N_3}$

Descriptions.

$cd := \frac{N_1}{N_1 + N_3}$ $R_1 := \frac{N_2}{cd}$

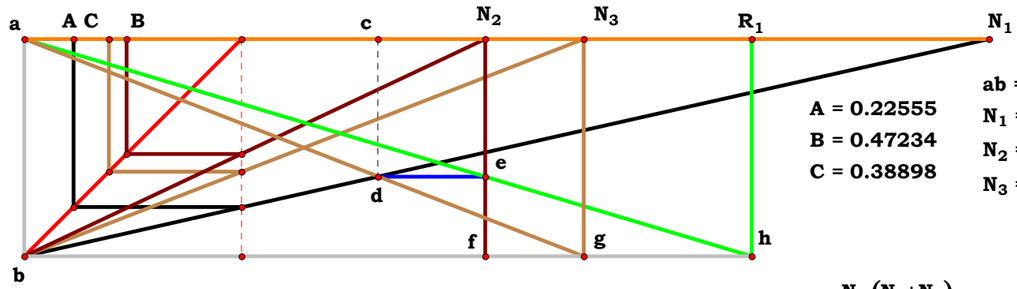
$R_1 = 3.344764$

Definitions.

$$R_1 - \frac{N_2 \cdot (N_1 + N_3)}{N_1} = 0$$

$N_1 - \frac{1}{A} = 0$ $N_2 - \frac{1}{B} = 0$ $N_3 - \frac{1}{C} = 0$

$$R_1 - \frac{(A + C)}{B \cdot C} = 0$$



A = 0.22555
B = 0.47234
C = 0.38898

ab = 1.00000
N_1 = 4.43356
N_2 = 2.11714
N_3 = 2.57080

$R_1 = 3.34477$

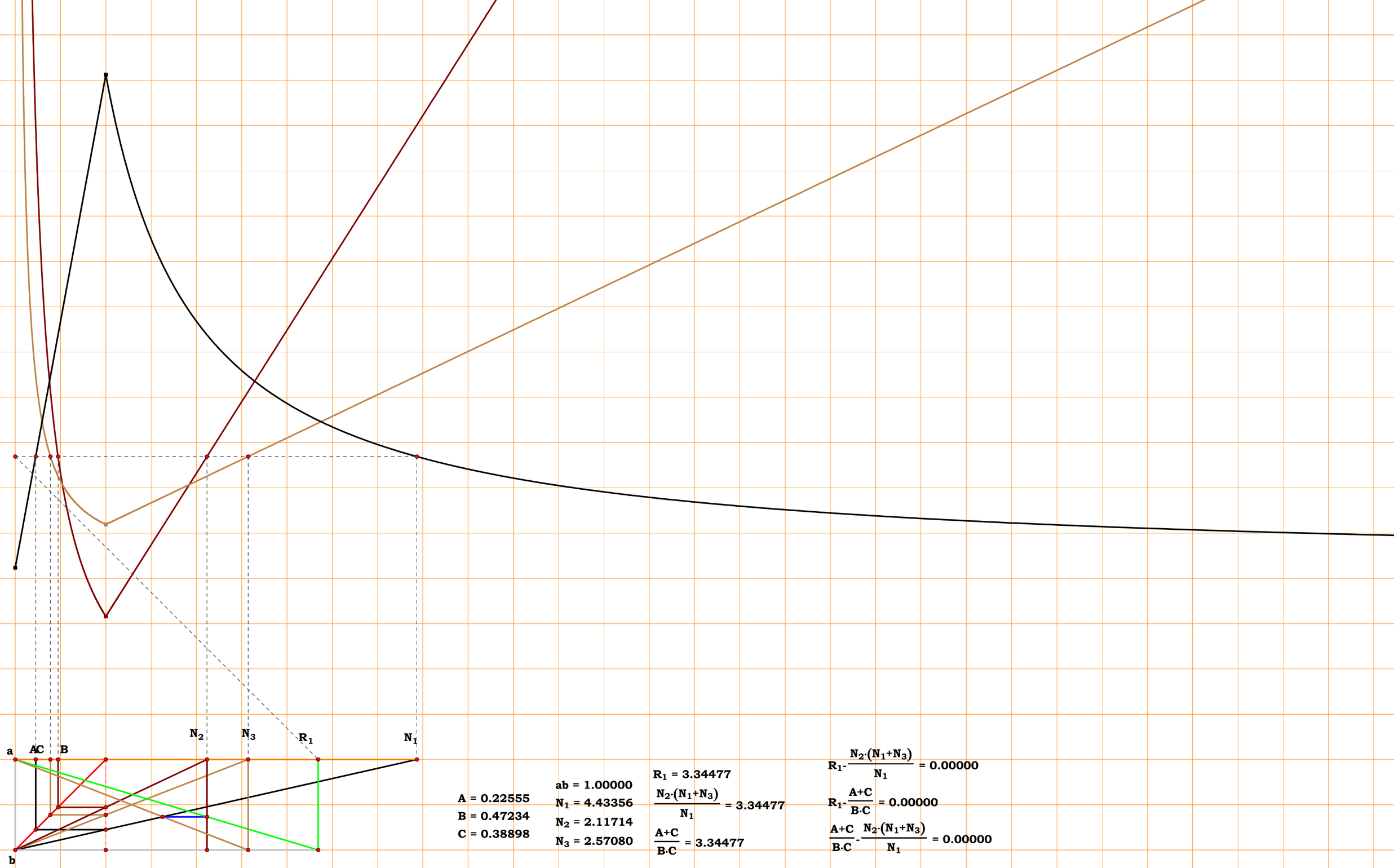
$\frac{N_2 \cdot (N_1 + N_3)}{N_1} = 3.34477$

$\frac{A+C}{B \cdot C} = 3.34477$

$$R_1 - \frac{N_2 \cdot (N_1 + N_3)}{N_1} = 0.00000$$

$$R_1 - \frac{A+C}{B \cdot C} = 0.00000$$

$$\frac{A+C}{B \cdot C} - \frac{N_2 \cdot (N_1 + N_3)}{N_1} = 0.00000$$



A = 0.22555
B = 0.47234
C = 0.38898

ab = 1.00000
N_1 = 4.43356
N_2 = 2.11714
N_3 = 2.57080

R_1 = 3.34477

$$\frac{N_2\cdot(N_1+N_3)}{N_1} = 3.34477$$

$$\frac{A+C}{B\cdot C} = 3.34477$$

$$R_1-\frac{N_2\cdot(N_1+N_3)}{N_1} = 0.00000$$

$$R_1-\frac{A+C}{B\cdot C} = 0.00000$$

$$\frac{A+C}{B\cdot C}-\frac{N_2\cdot(N_1+N_3)}{N_1} = 0.00000$$

1CST5R0

Given.

Unit. $ab := 1 \quad N_1 := 1.91252 \quad N_2 := 3.75256$

$N_3 := 2.36821 \quad N_4 := 2.82328 \quad N_5 := 1.68340$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2} \quad C := \frac{1}{N_3} \quad D := \frac{1}{N_4} \quad E := \frac{1}{N_5}$

Descriptions.

$bj := \frac{N_1 \cdot N_2}{N_1 + N_2} \quad hj := \frac{bj}{N_1}$

$bg := N_3 \cdot hj \quad fg := \frac{bg}{N_4}$

$bd := N_5 \cdot fg \quad R_1 := \frac{bd}{1 - fg}$

$R_1 = 2.104908 \quad R_2 := \frac{1}{R_1}$

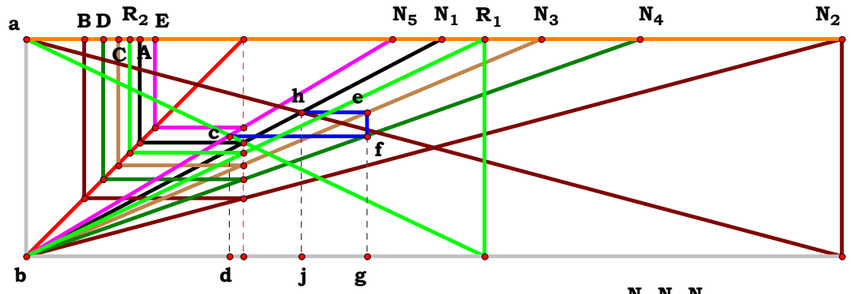
Definitions.

$R_1 - \frac{N_2 \cdot N_3 \cdot N_5}{N_1 \cdot N_4 - N_2 \cdot (N_3 - N_4)} = 0$

$N_1 - \frac{1}{A} = 0 \quad N_2 - \frac{1}{B} = 0$

$N_3 - \frac{1}{C} = 0 \quad N_4 - \frac{1}{D} = 0 \quad N_5 - \frac{1}{E} = 0$

$R_1 - \frac{A \cdot D}{E \cdot (A \cdot C - A \cdot D + B \cdot C)} = 0 \quad R_2 - \frac{E \cdot (A \cdot C - A \cdot D + B \cdot C)}{A \cdot D} = 0$



$A = 0.52287$
$B = 0.26648$
$C = 0.42226$
$D = 0.35420$
$E = 0.59403$

$ab = 1.00000$
$N_1 = 1.91252$
$N_2 = 3.75256$
$N_3 = 2.36821$
$N_4 = 2.82328$
$N_5 = 1.68340$

$R_1 = 2.10491$

$\frac{N_2 \cdot N_3 \cdot N_5}{N_1 \cdot N_4 - N_2 \cdot (N_3 - N_4)} = 2.10491$

$\frac{A \cdot D}{E \cdot ((A \cdot C - A \cdot D) + B \cdot C)} = 2.10491$

$R_1 - \frac{N_2 \cdot N_3 \cdot N_5}{N_1 \cdot N_4 - N_2 \cdot (N_3 - N_4)} = 0.00000$

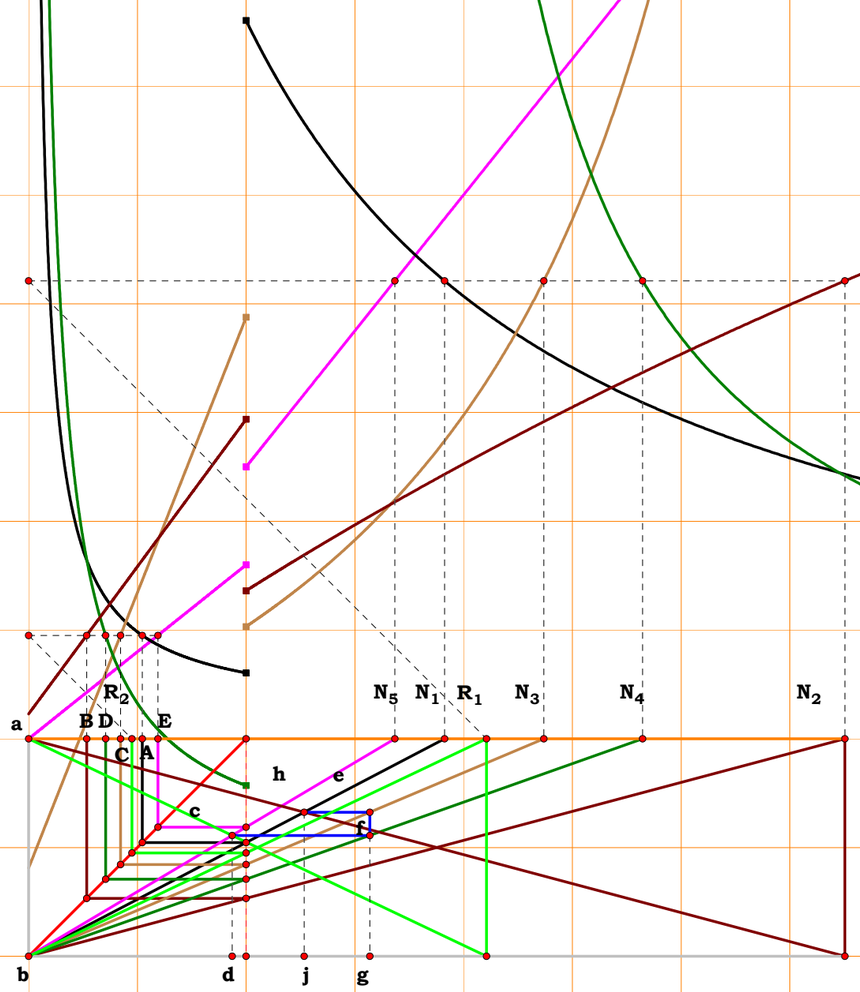
$R_1 - \frac{A \cdot D}{E \cdot ((A \cdot C - A \cdot D) + B \cdot C)} = 0.00000$

$\frac{A \cdot D}{E \cdot ((A \cdot C - A \cdot D) + B \cdot C)} - \frac{N_2 \cdot N_3 \cdot N_5}{N_1 \cdot N_4 - N_2 \cdot (N_3 - N_4)} = 0.00000$

$R_2 = 0.47508$

$\frac{E \cdot ((A \cdot C - A \cdot D) + B \cdot C)}{A \cdot D} = 0.47508$

$R_2 - \frac{E \cdot ((A \cdot C - A \cdot D) + B \cdot C)}{A \cdot D} = 0.00000$



$A = 0.52287$
$B = 0.26648$
$C = 0.42226$
$D = 0.35420$
$E = 0.59403$

$ab = 1.00000$
$N_1 = 1.91252$
$N_2 = 3.75256$
$N_3 = 2.36821$
$N_4 = 2.82328$
$N_5 = 1.68340$

$R_1 = 2.10491$

$$\frac{N_2 \cdot N_3 \cdot N_5}{N_1 \cdot N_4 - N_2 \cdot (N_3 - N_4)} = 2.10491$$

$$\frac{A \cdot D}{E \cdot ((A \cdot C - A \cdot D) + B \cdot C)} = 2.10491$$

$$R_1 - \frac{N_2 \cdot N_3 \cdot N_5}{N_1 \cdot N_4 - N_2 \cdot (N_3 - N_4)} = 0.00000$$

$$R_1 - \frac{A \cdot D}{E \cdot ((A \cdot C - A \cdot D) + B \cdot C)} = 0.00000$$

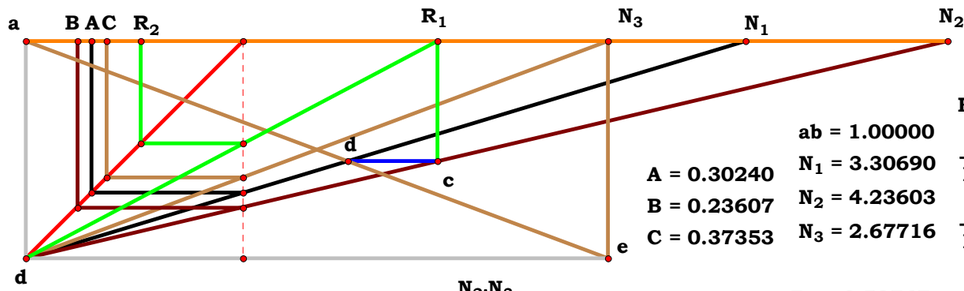
$$\frac{A \cdot D}{E \cdot ((A \cdot C - A \cdot D) + B \cdot C)} - \frac{N_2 \cdot N_3 \cdot N_5}{N_1 \cdot N_4 - N_2 \cdot (N_3 - N_4)} = 0.00000$$

$R_2 = 0.47508$

$$\frac{E \cdot ((A \cdot C - A \cdot D) + B \cdot C)}{A \cdot D} = 0.47508$$

$$R_2 - \frac{E \cdot ((A \cdot C - A \cdot D) + B \cdot C)}{A \cdot D} = 0.00000$$

1CST5R1



Given.

Unit. $ab := 1 \quad N_1 := 3.30690$

$N_2 := 4.23603 \quad N_3 := 2.67716$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2} \quad C := \frac{1}{N_3}$

Descriptions.

$ch := \frac{N_1}{N_1 + N_3} \quad RN_2 := N_2 \cdot ch \quad R_1 := N_2 - RN_2$

$R_1 = 1.895123 \quad R_2 := \frac{1}{R_1}$

Definitions.

$R_1 - \frac{N_2 \cdot N_3}{N_1 + N_3} = 0$

$N_1 - \frac{1}{A} = 0 \quad N_2 - \frac{1}{B} = 0 \quad N_3 - \frac{1}{C} = 0$

$R_1 - \frac{A}{B \cdot (A + C)} = 0 \quad R_2 - \frac{B \cdot (A + C)}{A} = 0$

A = 0.30240
B = 0.23607
C = 0.37353

ab = 1.00000
N_1 = 3.30690
N_2 = 4.23603
N_3 = 2.67716

$R_1 = 1.89512$

$\frac{N_2 \cdot N_3}{N_1 + N_3} = 1.89512$

$\frac{A}{B \cdot (A+C)} = 1.89512$

$R_1 - \frac{N_2 \cdot N_3}{N_1 + N_3} = 0.00000$

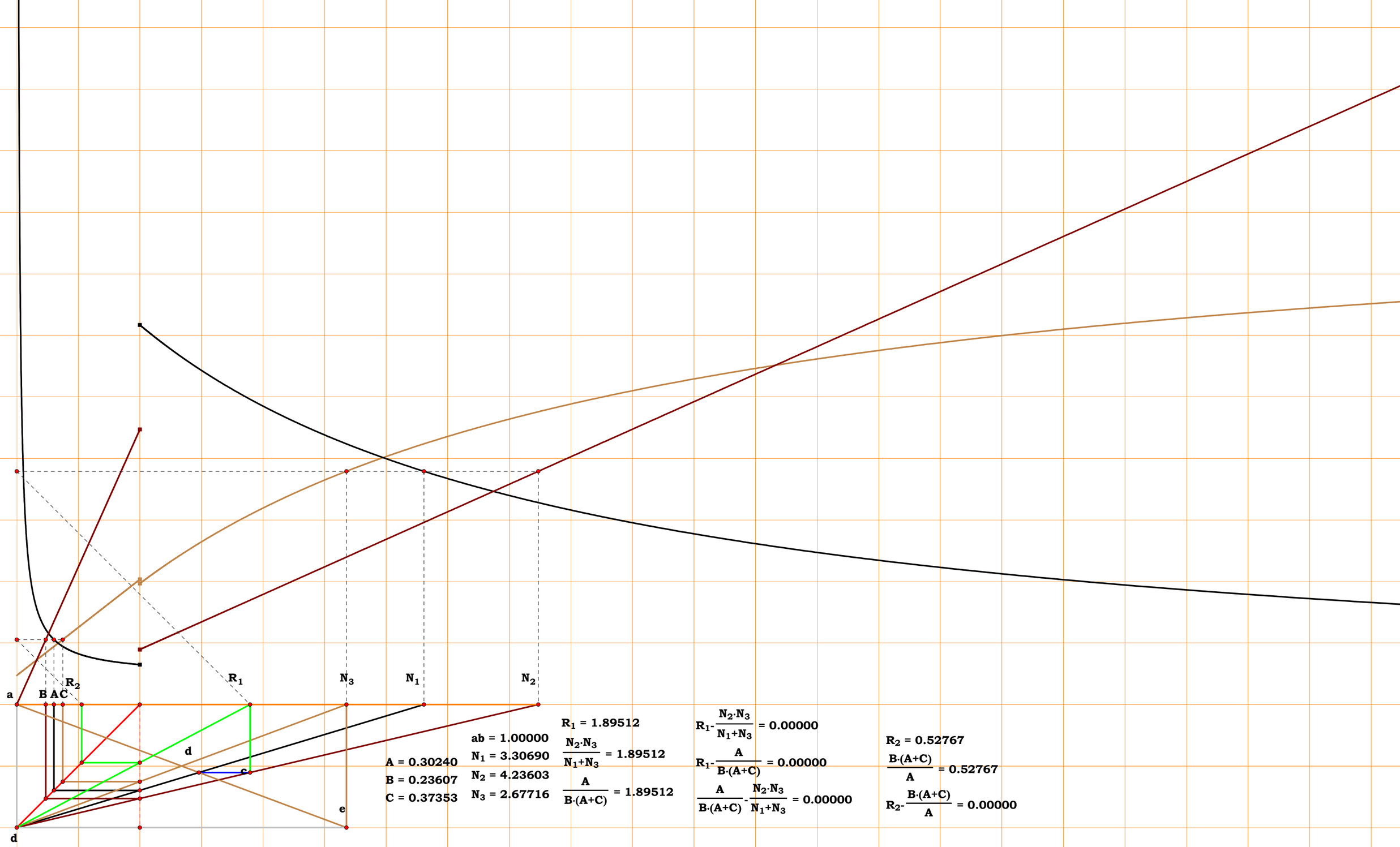
$R_1 - \frac{A}{B \cdot (A+C)} = 0.00000$

$\frac{A}{B \cdot (A+C)} - \frac{N_2 \cdot N_3}{N_1 + N_3} = 0.00000$

$R_2 = 0.52767$

$\frac{B \cdot (A+C)}{A} = 0.52767$

$R_2 - \frac{B \cdot (A+C)}{A} = 0.00000$



A = 0.30240
B = 0.23607
C = 0.37353

ab = 1.00000
N_1 = 3.30690
N_2 = 4.23603
N_3 = 2.67716

$R_1 = 1.89512$

$\frac{N_2 \cdot N_3}{N_1+N_3} = 1.89512$

$\frac{A}{B \cdot (A+C)} = 1.89512$

$R_1 - \frac{N_2 \cdot N_3}{N_1+N_3} = 0.00000$

$R_1 - \frac{A}{B \cdot (A+C)} = 0.00000$

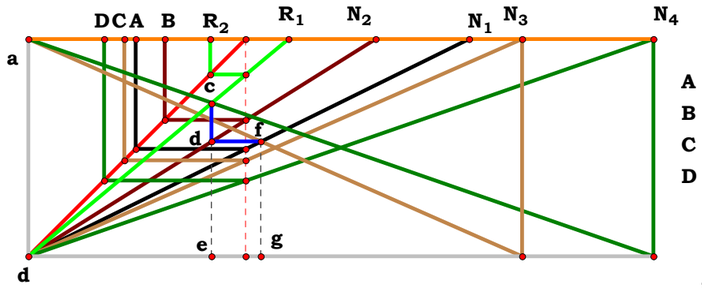
$\frac{A}{B \cdot (A+C)} - \frac{N_2 \cdot N_3}{N_1+N_3} = 0.00000$

$R_2 = 0.52767$

$\frac{B \cdot (A+C)}{A} = 0.52767$

$R_2 - \frac{B \cdot (A+C)}{A} = 0.00000$

1CST5R2



A = 0.49392
B = 0.62629
C = 0.44107
D = 0.34799

ac = 1.00000
N_1 = 2.02461
N_2 = 1.59672
N_3 = 2.26723
N_4 = 2.87365

R_1 = 1.19394

$$\frac{N_2 \cdot N_3 \cdot N_4}{N_1 \cdot N_4 - N_3 \cdot (N_2 - N_4)} = 1.19394$$

$$\frac{A}{(A \cdot B - A \cdot D) + B \cdot C} = 1.19394$$

Given.

Unit. $ab := 1$ $N_1 := 2.02461$

$N_2 := 1.59672$ $N_3 := 2.26723$

$N_4 := 2.87365$

$$A := \frac{1}{N_1} \quad B := \frac{1}{N_2} \quad C := \frac{1}{N_3} \quad D := \frac{1}{N_4}$$

Descriptions.

$$bg := \frac{N_1 \cdot N_3}{N_1 + N_3} \qquad fg := \frac{bg}{N_1}$$

$$be := N_2 \cdot fg \qquad ce := \frac{N_4 - be}{N_4} \qquad R_1 := \frac{be}{ce}$$

$R_1 = 1.193946$ $\qquad R_2 := \frac{1}{R_1}$

Definitions.

$$R_1 - \frac{N_2 \cdot N_3 \cdot N_4}{N_1 \cdot N_4 - N_3 \cdot (N_2 - N_4)} = 0$$

$$N_1 - \frac{1}{A} = 0 \qquad N_2 - \frac{1}{B} = 0$$

$$N_3 - \frac{1}{C} = 0 \qquad N_4 - \frac{1}{D} = 0$$

$$R_1 - \frac{A}{A \cdot B - A \cdot D + B \cdot C} = 0 \qquad R_2 - \frac{A \cdot B - A \cdot D + B \cdot C}{A} = 0$$

$$R_1 - \frac{N_2 \cdot N_3 \cdot N_4}{N_1 \cdot N_4 - N_3 \cdot (N_2 - N_4)} = 0.00000$$

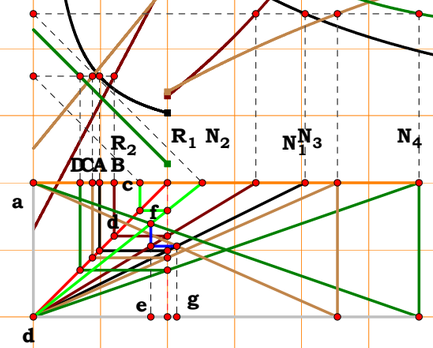
$$R_1 - \frac{A}{(A \cdot B - A \cdot D) + B \cdot C} = 0.00000$$

$$\frac{A}{(A \cdot B - A \cdot D) + B \cdot C} - \frac{N_2 \cdot N_3 \cdot N_4}{N_1 \cdot N_4 - N_3 \cdot (N_2 - N_4)} = 0.00000$$

$R_2 = 0.83756$

$$\frac{(A \cdot B - A \cdot D) + B \cdot C}{A} = 0.83756$$

$$R_2 - \frac{(A \cdot B - A \cdot D) + B \cdot C}{A} = 0.00000$$



A = 0.49392
B = 0.60306
C = 0.44107
D = 0.34799

ac = 1.00000
N_1 = 2.02461
N_2 = 1.65820
N_3 = 2.26723
N_4 = 2.87365

$R_1 = 1.26008$

$$\frac{N_2 \cdot N_3 \cdot N_4}{N_1 \cdot N_4 - N_3 \cdot (N_2 - N_4)} = 1.26008$$

$$\frac{A}{(A \cdot B - A \cdot D) + B \cdot C} = 1.26008$$

$$R_1 - \frac{N_2 \cdot N_3 \cdot N_4}{N_1 \cdot N_4 - N_3 \cdot (N_2 - N_4)} = 0.00000$$

$$R_1 - \frac{A}{(A \cdot B - A \cdot D) + B \cdot C} = 0.00000$$

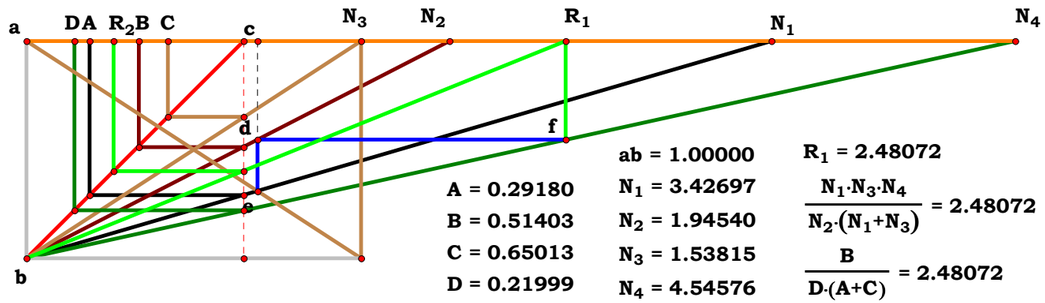
$$\frac{A}{(A \cdot B - A \cdot D) + B \cdot C} - \frac{N_2 \cdot N_3 \cdot N_4}{N_1 \cdot N_4 - N_3 \cdot (N_2 - N_4)} = 0.00000$$

$R_2 = 0.79360$

$$\frac{(A \cdot B - A \cdot D) + B \cdot C}{A} = 0.79360$$

$$R_2 - \frac{(A \cdot B - A \cdot D) + B \cdot C}{A} = 0.00000$$

1CST5R3



Given.

Unit. $ab := 1 \quad N_1 := 3.42697$

$N_2 := 1.94540 \quad N_3 := 1.53815 \quad N_4 := 4.54576$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2} \quad C := \frac{1}{N_3} \quad D := \frac{1}{N_4}$

Descriptions.

$ac := \frac{N_1 \cdot N_3}{N_1 + N_3} \quad cd := 1 - \frac{ac}{N_2}$

$R1N_4 := N_4 \cdot cd \quad R_1 := N_4 - R1N_4$

$R_1 = 2.480715 \quad R_2 := \frac{1}{R_1}$

Definitions.

$R_1 - \frac{N_1 \cdot N_3 \cdot N_4}{N_2 \cdot (N_1 + N_3)} = 0$

$N_1 - \frac{1}{A} = 0 \quad N_2 - \frac{1}{B} = 0$

$N_3 - \frac{1}{C} = 0 \quad N_4 - \frac{1}{D} = 0$

$R_1 - \frac{B}{D \cdot (A + C)} = 0 \quad R_2 - \frac{D \cdot (A + C)}{B} = 0$

$ab = 1.00000$

$A = 0.29180 \quad N_1 = 3.42697 \quad R_1 = 2.48072$

$B = 0.51403 \quad N_2 = 1.94540 \quad \frac{N_1 \cdot N_3 \cdot N_4}{N_2 \cdot (N_1 + N_3)} = 2.48072$

$C = 0.65013 \quad N_3 = 1.53815 \quad \frac{B}{D \cdot (A+C)} = 2.48072$

$D = 0.21999 \quad N_4 = 4.54576$

$R_1 - \frac{N_1 \cdot N_3 \cdot N_4}{N_2 \cdot (N_1 + N_3)} = 0.00000$

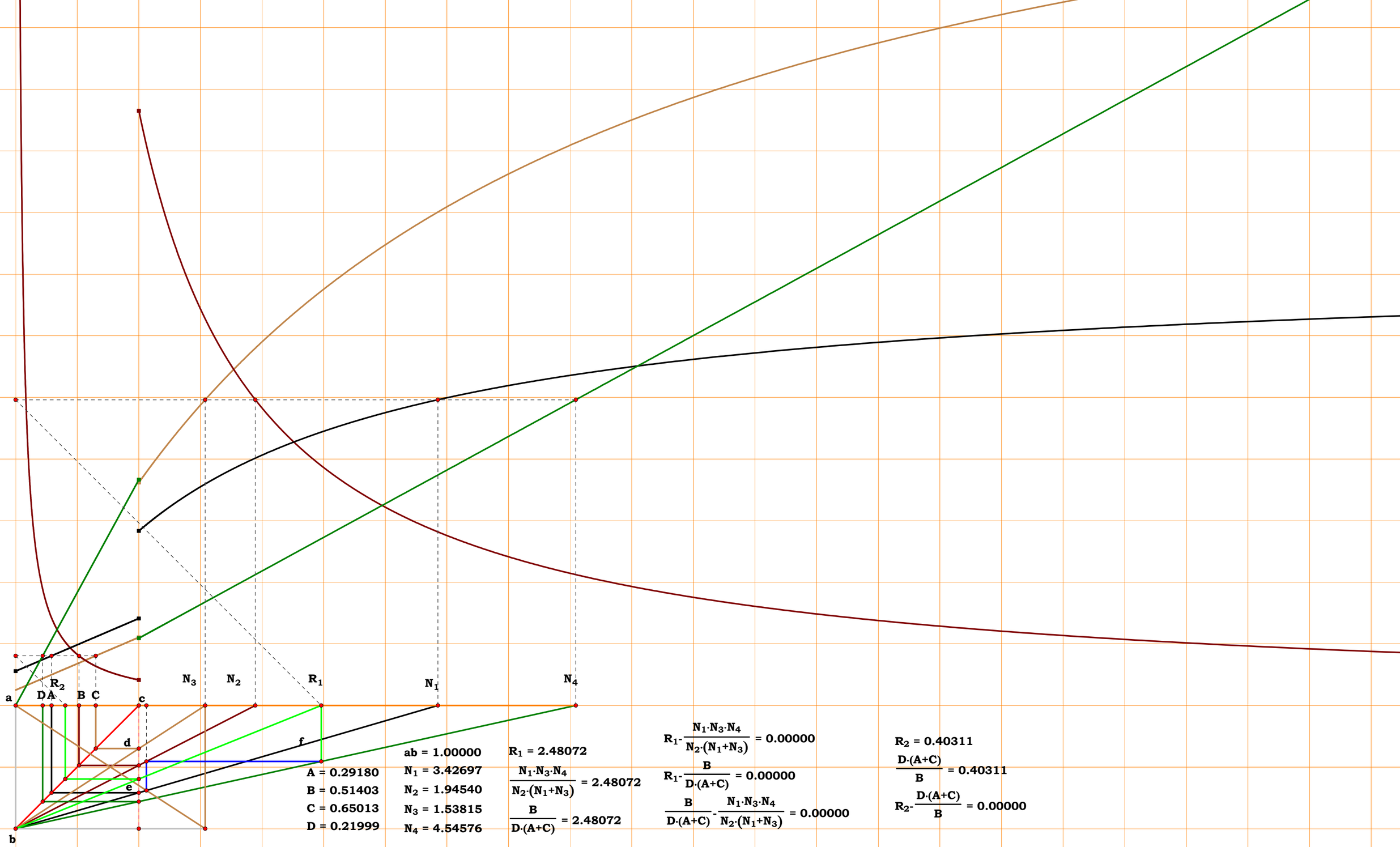
$R_1 - \frac{B}{D \cdot (A+C)} = 0.00000$

$\frac{B}{D \cdot (A+C)} - \frac{N_1 \cdot N_3 \cdot N_4}{N_2 \cdot (N_1 + N_3)} = 0.00000$

$R_2 = 0.40311$

$\frac{D \cdot (A+C)}{B} = 0.40311$

$R_2 - \frac{D \cdot (A+C)}{B} = 0.00000$



$A = 0.29180$
$B = 0.51403$
$C = 0.65013$
$D = 0.21999$

$ab = 1.00000$
$N_1 = 3.42697$
$N_2 = 1.94540$
$N_3 = 1.53815$
$N_4 = 4.54576$

$R_1 = 2.48072$

$$\frac{N_1 \cdot N_3 \cdot N_4}{N_2 \cdot (N_1 + N_3)} = 2.48072$$

$$\frac{B}{D \cdot (A+C)} = 2.48072$$

$$R_1 - \frac{N_1 \cdot N_3 \cdot N_4}{N_2 \cdot (N_1 + N_3)} = 0.00000$$

$$R_1 - \frac{B}{D \cdot (A+C)} = 0.00000$$

$$\frac{B}{D \cdot (A+C)} - \frac{N_1 \cdot N_3 \cdot N_4}{N_2 \cdot (N_1 + N_3)} = 0.00000$$

$R_2 = 0.40311$

$$\frac{D \cdot (A+C)}{B} = 0.40311$$

$$R_2 - \frac{D \cdot (A+C)}{B} = 0.00000$$

1CST5R4

Given.

Unit. $ab := 1 \quad N_1 := 2.58090$

$N_2 := 2.20853$

$N_3 := 5.16448 \quad N_4 := 2.99428$

$N_5 := 1.83578 \quad N_6 := 3.58898$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2} \quad C := \frac{1}{N_3}$

$D := \frac{1}{N_4} \quad E := \frac{1}{N_5} \quad F := \frac{1}{N_6}$

Descriptions.

$bk := \frac{N_1 \cdot N_3}{N_1 + N_3} \qquad jk := 1 - \frac{N_1 - bk}{N_1} \qquad bh := N_2 \cdot jk$

$cd := 1 - \frac{N_4 - bh}{N_4} \qquad bd := N_5 \cdot cd \qquad bg := \frac{bd}{1 - cd}$

$bf := \frac{bg \cdot N_6}{bg + N_6} \qquad ef := \frac{bf}{N_6} \qquad R_1 := \frac{bh}{ef}$

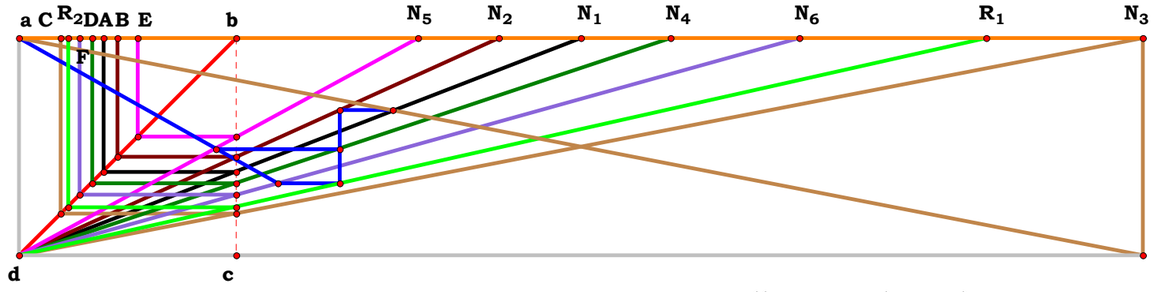
$R_1 = 4.447502 \qquad R_2 := \frac{1}{R_1}$

Definitions.

$R_1 - \frac{N_2 \cdot N_3 \cdot N_5 + N_6 \cdot \left(N_1 \cdot N_4 - N_2 \cdot N_3 + N_3 \cdot N_4\right)}{N_5 \cdot \left(N_1 + N_3\right)} = 0$

$N_1 - \frac{1}{A} = 0 \qquad N_2 - \frac{1}{B} = 0 \qquad N_3 - \frac{1}{C} = 0 \qquad N_4 - \frac{1}{D} = 0 \qquad N_5 - \frac{1}{E} = 0 \qquad N_6 - \frac{1}{F} = 0$

$R_1 - \frac{[B \cdot E \cdot (A + C) - A \cdot D \cdot (E - F)]}{B \cdot D \cdot F \cdot (A + C)} = 0 \qquad R_2 - \frac{B \cdot D \cdot F \cdot (A + C)}{[B \cdot E \cdot (A + C) - A \cdot D \cdot (E - F)]} = 0$



A = 0.38746
B = 0.45279
C = 0.19363
D = 0.33397
E = 0.54473
F = 0.27863

ab = 1.00000
N1 = 2.58090
N2 = 2.20853
N3 = 5.16448
N4 = 2.99428
N5 = 1.83578
N6 = 3.58898

$R_1 = 4.44750$

$\frac{N_2 \cdot N_3 \cdot N_5 + N_6 \cdot ((N_1 \cdot N_4 - N_2 \cdot N_3) + N_3 \cdot N_4)}{N_5 \cdot (N_1 + N_3)} = 4.44750$

$\frac{B \cdot E \cdot (A+C) - A \cdot D \cdot (E-F)}{B \cdot D \cdot F \cdot (A+C)} = 4.44750$

$R_1 - \frac{N_2 \cdot N_3 \cdot N_5 + N_6 \cdot ((N_1 \cdot N_4 - N_2 \cdot N_3) + N_3 \cdot N_4)}{N_5 \cdot (N_1 + N_3)} = 0.00000$

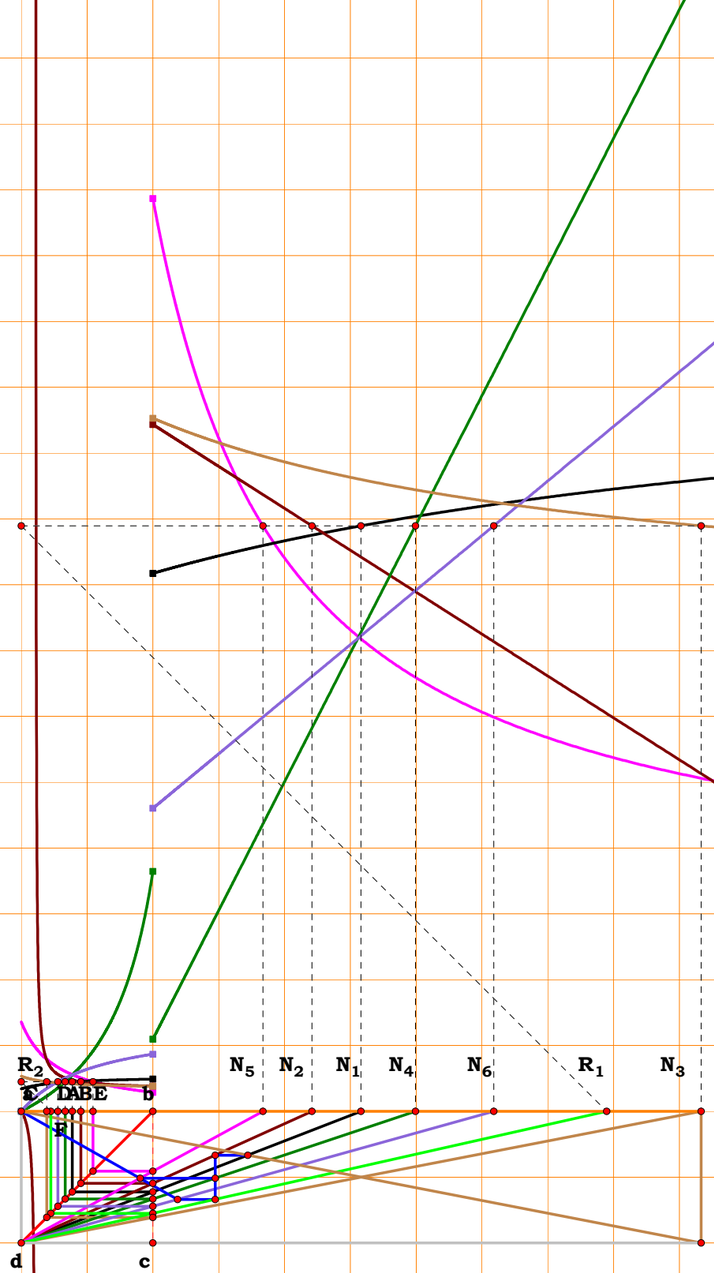
$R_1 - \frac{B \cdot E \cdot (A+C) - A \cdot D \cdot (E-F)}{B \cdot D \cdot F \cdot (A+C)} = 0.00000$

$\frac{B \cdot E \cdot (A+C) - A \cdot D \cdot (E-F)}{B \cdot D \cdot F \cdot (A+C)} - \frac{N_2 \cdot N_3 \cdot N_5 + N_6 \cdot ((N_1 \cdot N_4 - N_2 \cdot N_3) + N_3 \cdot N_4)}{N_5 \cdot (N_1 + N_3)} = 0.00000$

$R_2 = 0.22485$

$\frac{B \cdot D \cdot F \cdot (A+C)}{B \cdot E \cdot (A+C) - A \cdot D \cdot (E-F)} = 0.22485$

$R_2 - \frac{B \cdot D \cdot F \cdot (A+C)}{B \cdot E \cdot (A+C) - A \cdot D \cdot (E-F)} = 0.00000$



$ab = 1.00000$

$A = 0.38746$ $N_1 = 2.58090$

$B = 0.45279$ $N_2 = 2.20853$

$C = 0.19363$ $N_3 = 5.16448$

$D = 0.33397$ $N_4 = 2.99428$

$E = 0.54473$ $N_5 = 1.83578$

$F = 0.27863$ $N_6 = 3.58898$

$R_1 = 4.44750$

$$\frac{N_2 \cdot N_3 \cdot N_5 + N_6 \cdot ((N_1 \cdot N_4 - N_2 \cdot N_3) + N_3 \cdot N_4)}{N_5 \cdot (N_1 + N_3)} = 4.44750$$

$$\frac{B \cdot E \cdot (A+C) - A \cdot D \cdot (E-F)}{B \cdot D \cdot F \cdot (A+C)} = 4.44750$$

$$R_1 - \frac{N_2 \cdot N_3 \cdot N_5 + N_6 \cdot ((N_1 \cdot N_4 - N_2 \cdot N_3) + N_3 \cdot N_4)}{N_5 \cdot (N_1 + N_3)} = 0.00000$$

$$R_1 - \frac{B \cdot E \cdot (A+C) - A \cdot D \cdot (E-F)}{B \cdot D \cdot F \cdot (A+C)} = 0.00000$$

$$\frac{B \cdot E \cdot (A+C) - A \cdot D \cdot (E-F)}{B \cdot D \cdot F \cdot (A+C)} - \frac{N_2 \cdot N_3 \cdot N_5 + N_6 \cdot ((N_1 \cdot N_4 - N_2 \cdot N_3) + N_3 \cdot N_4)}{N_5 \cdot (N_1 + N_3)} = 0.00000$$

$R_2 = 0.22485$

$$\frac{B \cdot D \cdot F \cdot (A+C)}{B \cdot E \cdot (A+C) - A \cdot D \cdot (E-F)} = 0.22485$$

$$R_2 - \frac{B \cdot D \cdot F \cdot (A+C)}{B \cdot E \cdot (A+C) - A \cdot D \cdot (E-F)} = 0.00000$$

1CST5R5

Given.

Unit. $ab := 1$ $N_1 := 2.48950$

$N_2 := 2.06291$ $N_3 := 5.11287$

$N_4 := 3.19587$

$A := \frac{1}{N_1}$ $B := \frac{1}{N_2}$ $C := \frac{1}{N_3}$ $D := \frac{1}{N_4}$

Descriptions.

$bh := \frac{N_1 \cdot N_3}{N_1 + N_3}$ $fh := \frac{bh}{N_1}$

$be := N_2 \cdot fh$ $de := \frac{be}{N_4}$ $R_1 := \frac{bh}{de}$

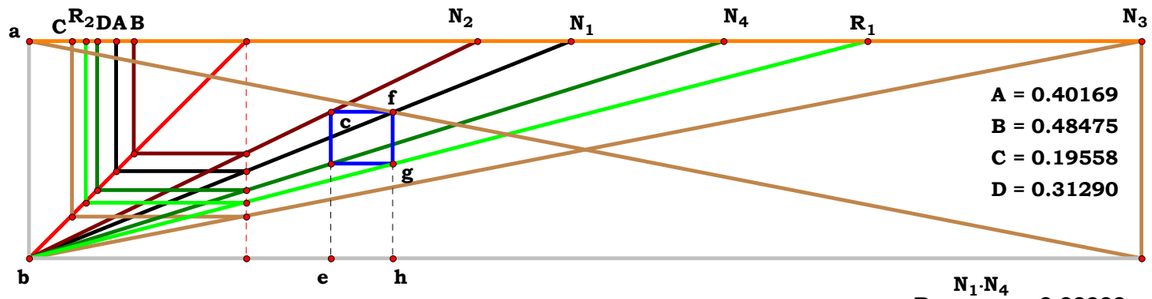
$R_1 = 3.856745$ $R_2 := \frac{1}{R_1}$

Definitions.

$R_1 - \frac{N_1 \cdot N_4}{N_2} = 0$ **An invisible Variable.**

$N_1 - \frac{1}{A} = 0$ $N_2 - \frac{1}{B} = 0$ $N_3 - \frac{1}{C} = 0$ $N_4 - \frac{1}{D} = 0$

$R_1 - \frac{B}{A \cdot D} = 0$ $R_2 - \frac{A \cdot D}{B} = 0$



A = 0.40169
B = 0.48475
C = 0.19558
D = 0.31290

ab = 1.00000
N_1 = 2.48950
N_2 = 2.06291
N_3 = 5.11287
N_4 = 3.19587

$R_1 = 3.85674$

$\frac{N_1 \cdot N_4}{N_2} = 3.85674$

$\frac{B}{A \cdot D} = 3.85674$

$R_1 - \frac{N_1 \cdot N_4}{N_2} = 0.00000$

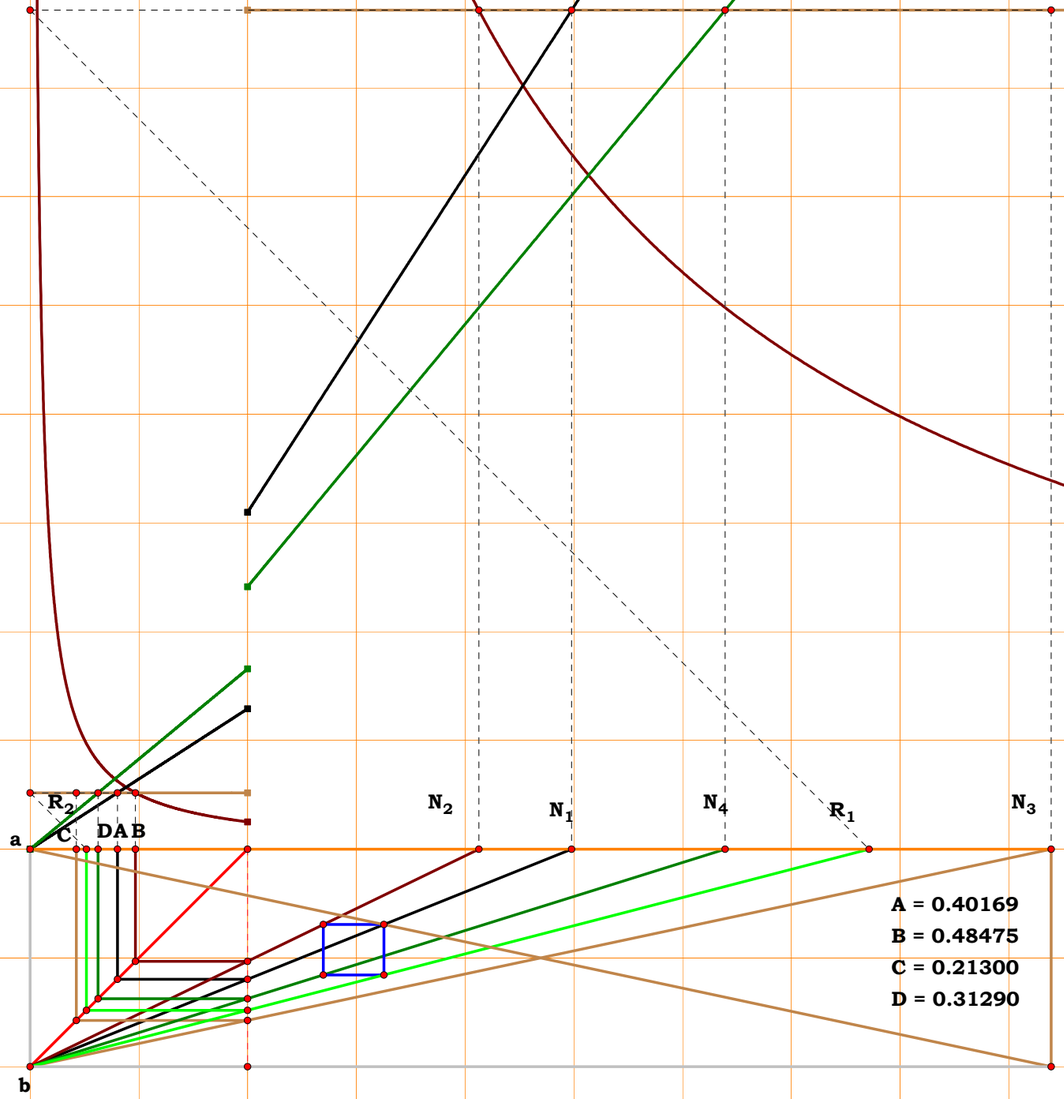
$R_1 - \frac{B}{A \cdot D} = 0.00000$

$\frac{B}{A \cdot D} - \frac{N_1 \cdot N_4}{N_2} = 0.00000$

$R_2 = 0.25929$

$\frac{A \cdot D}{B} = 0.25929$

$R_2 - \frac{A \cdot D}{B} = 0.00000$



A = 0.40169
B = 0.48475
C = 0.21300
D = 0.31290

ab = 1.00000
N_1 = 2.48950
N_2 = 2.06291
N_3 = 4.69479
N_4 = 3.19587

R_1 = 3.85674

$\frac{N_1 \cdot N_4}{N_2}$ = 3.85674

$\frac{B}{A \cdot D}$ = 3.85674

$R_1 - \frac{N_1 \cdot N_4}{N_2}$ = 0.00000

$R_1 - \frac{B}{A \cdot D}$ = 0.00000

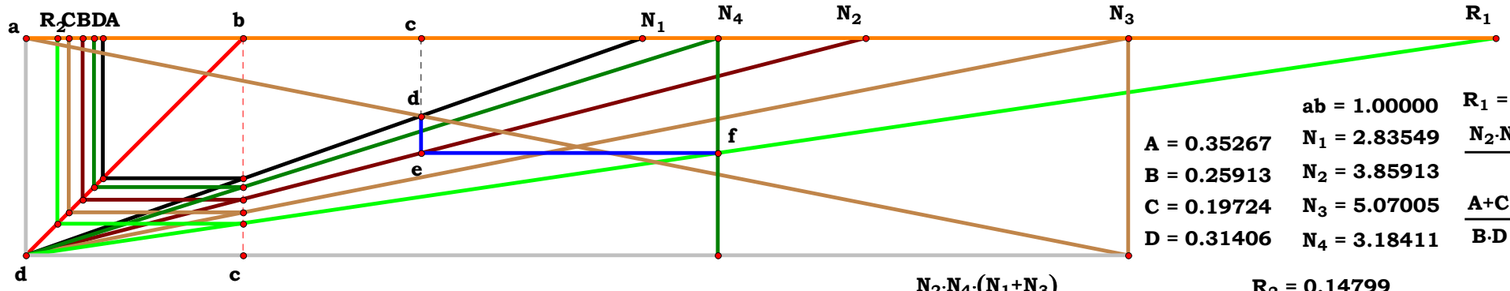
$\frac{B}{A \cdot D} - \frac{N_1 \cdot N_4}{N_2}$ = 0.00000

R_2 = 0.25929

$\frac{A \cdot D}{B}$ = 0.25929

$R_2 - \frac{A \cdot D}{B}$ = 0.00000

1CST5R6



Given.

Unit. $ab := 1$ $N_1 := 2.83549$

$N_2 := 3.85913$ $N_3 := 5.07005$

$N_4 := 3.18411$

$A := \frac{1}{N_1}$ $B := \frac{1}{N_2}$ $C := \frac{1}{N_3}$ $D := \frac{1}{N_4}$

Descriptions.

$ac := \frac{N_1 \cdot N_3}{N_1 + N_3}$ $cd := \frac{N_2 - ac}{N_2}$ $R_1 := \frac{N_4}{1 - cd}$

$R_1 = 6.757229$ $R_2 := \frac{1}{R_1}$

Definitions.

$R_1 - \frac{N_2 \cdot N_4 \cdot (N_1 + N_3)}{N_1 \cdot N_3} = 0$

$N_1 - \frac{1}{A} = 0$ $N_2 - \frac{1}{B} = 0$

$N_3 - \frac{1}{C} = 0$ $N_4 - \frac{1}{D} = 0$

$R_1 - \frac{(A + C)}{B \cdot D} = 0$ $R_2 - \frac{B \cdot D}{(A + C)} = 0$

$A = 0.35267$ $B = 0.25913$ $C = 0.19724$ $D = 0.31406$

$ab = 1.00000$ $N_1 = 2.83549$ $N_2 = 3.85913$ $N_3 = 5.07005$ $N_4 = 3.18411$

$R_1 = 6.75723$

$\frac{N_2 \cdot N_4 \cdot (N_1 + N_3)}{N_1 \cdot N_3} = 6.75723$

$\frac{A+C}{B \cdot D} = 6.75723$

$R_1 - \frac{N_2 \cdot N_4 \cdot (N_1 + N_3)}{N_1 \cdot N_3} = 0.00000$

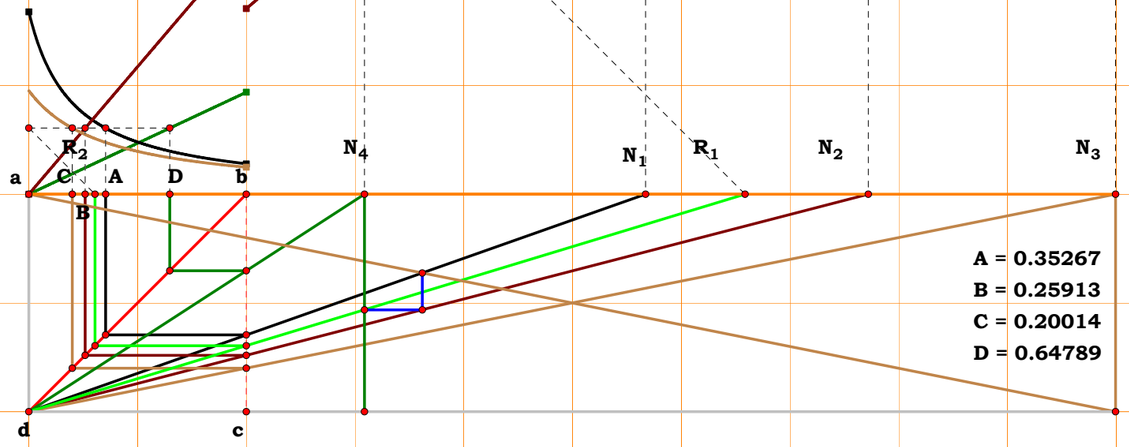
$R_1 - \frac{A+C}{B \cdot D} = 0.00000$

$\frac{A+C}{B \cdot D} - \frac{N_2 \cdot N_4 \cdot (N_1 + N_3)}{N_1 \cdot N_3} = 0.00000$

$R_2 = 0.14799$

$\frac{B \cdot D}{A+C} = 0.14799$

$R_2 - \frac{B \cdot D}{A+C} = 0.00000$



A = 0.35267
B = 0.25913
C = 0.20014
D = 0.64789

ab = 1.00000
N_1 = 2.83549
N_2 = 3.85913
N_3 = 4.99651
N_4 = 1.54348

$R_1 = 3.29282$

$$\frac{N_2 \cdot N_4 \cdot (N_1+N_3)}{N_1 \cdot N_3} = 3.29282$$

$$\frac{A+C}{B \cdot D} = 3.29282$$

$$R_1 - \frac{N_2 \cdot N_4 \cdot (N_1+N_3)}{N_1 \cdot N_3} = 0.00000$$

$$R_1 - \frac{A+C}{B \cdot D} = 0.00000$$

$$\frac{A+C}{B \cdot D} - \frac{N_2 \cdot N_4 \cdot (N_1+N_3)}{N_1 \cdot N_3} = 0.00000$$

$R_2 = 0.30369$

$$\frac{B \cdot D}{A+C} = 0.30369$$

$$R_2 - \frac{B \cdot D}{A+C} = 0.00000$$

1CST5R7

Given.

Unit. $ab := 1$ $N_1 := 1.60255$

$N_2 := 3.76536$ $N_3 := 3.19958$

$N_4 := 4.43923$ $N_5 := 2.59577$

$A := \frac{1}{N_1}$ $B := \frac{1}{N_2}$ $C := \frac{1}{N_3}$

$D := \frac{1}{N_4}$ $E := \frac{1}{N_5}$

Descriptions.

$aj := \frac{N_1 \cdot N_3}{N_1 + N_3}$ $jk := \frac{aj}{N_3}$ $ae := N_2 \cdot (1 - jk)$

$cd := \frac{ae}{N_4}$ $bd := N_5 \cdot (1 - cd)$ $R_1 := \frac{bd}{cd}$

$R_1 = 1.997355$ $R_2 := \frac{1}{R_1}$

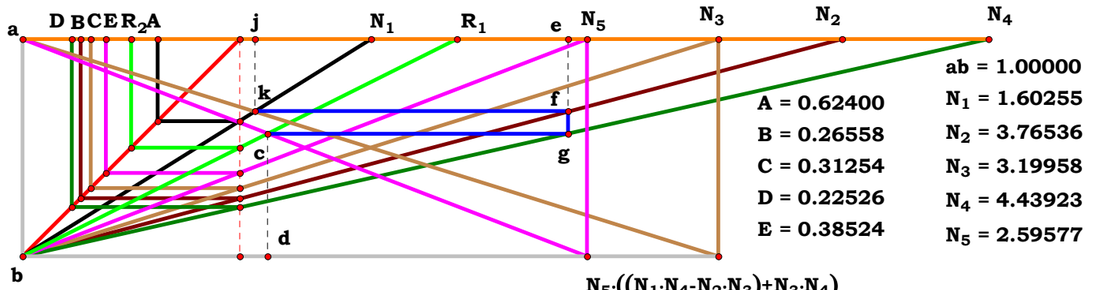
Definitions.

$$R_1 - \frac{N_5 \cdot \left(N_1 \cdot N_4 - N_2 \cdot N_3 + N_3 \cdot N_4\right)}{N_2 \cdot N_3} = 0$$

$N_1 - \frac{1}{A} = 0$ $N_2 - \frac{1}{B} = 0$

$N_3 - \frac{1}{C} = 0$ $N_4 - \frac{1}{D} = 0$ $N_5 - \frac{1}{E} = 0$

$$R_1 - \frac{(A \cdot B - A \cdot D + B \cdot C)}{A \cdot D \cdot E} = 0 \qquad R_2 - \frac{A \cdot D \cdot E}{(A \cdot B - A \cdot D + B \cdot C)} = 0$$



ab = 1.00000
A = 0.62400
B = 0.26558
C = 0.31254
D = 0.22526
E = 0.38524
N1 = 1.60255
N2 = 3.76536
N3 = 3.19958
N4 = 4.43923
N5 = 2.59577

$$R_1 - \frac{N_5 \cdot ((N_1 \cdot N_4 - N_2 \cdot N_3) + N_3 \cdot N_4)}{N_2 \cdot N_3} = 0.00000$$

$$R_1 - \frac{(A \cdot B - A \cdot D) + B \cdot C}{A \cdot D \cdot E} = 0.00000$$

$$\frac{(A \cdot B - A \cdot D) + B \cdot C}{A \cdot D \cdot E} - \frac{N_5 \cdot ((N_1 \cdot N_4 - N_2 \cdot N_3) + N_3 \cdot N_4)}{N_2 \cdot N_3} = 0.00000$$

$R_1 = 1.99735$

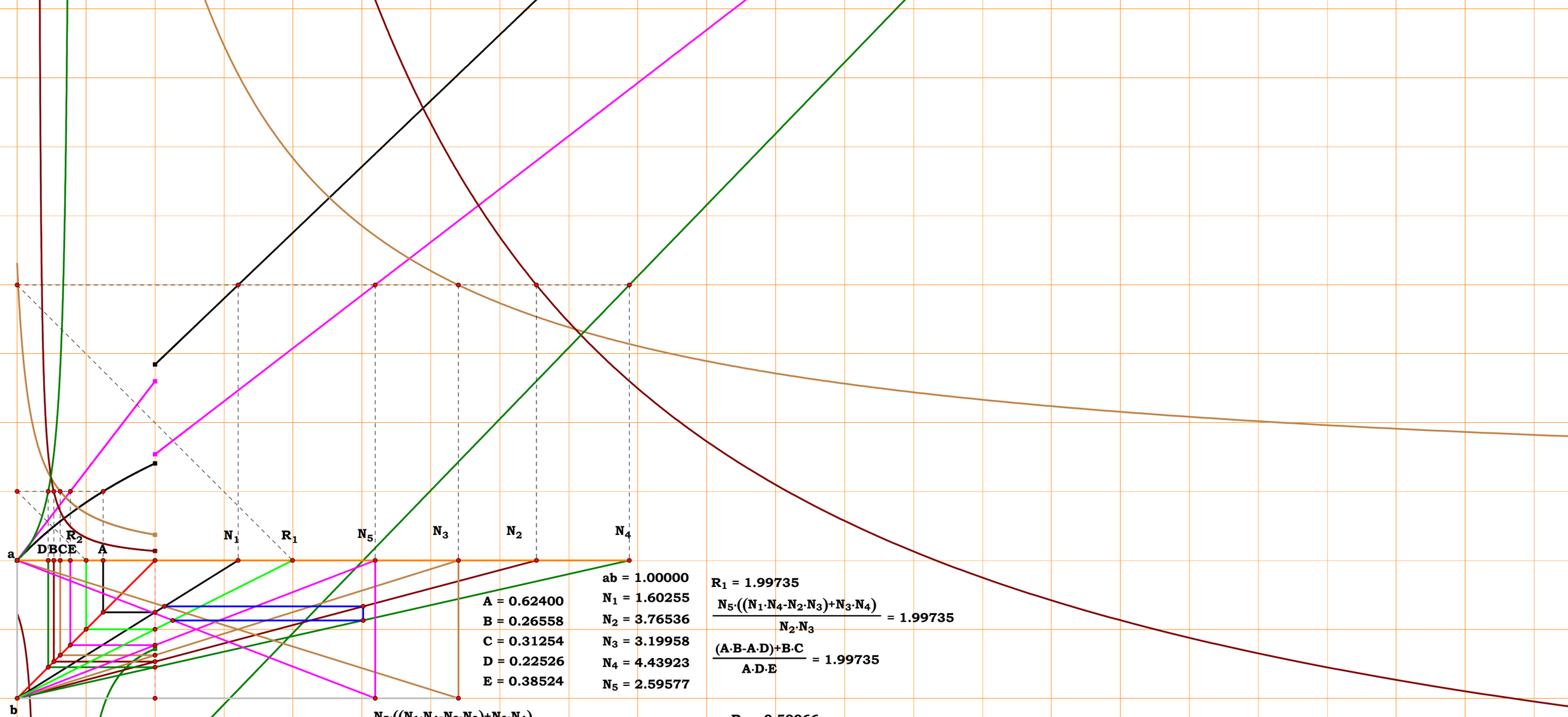
$$\frac{N_5 \cdot ((N_1 \cdot N_4 - N_2 \cdot N_3) + N_3 \cdot N_4)}{N_2 \cdot N_3} = 1.99735$$

$$\frac{(A \cdot B - A \cdot D) + B \cdot C}{A \cdot D \cdot E} = 1.99735$$

$R_2 = 0.50066$

$$\frac{A \cdot D \cdot E}{(A \cdot B - A \cdot D) + B \cdot C} = 0.50066$$

$$R_2 - \frac{A \cdot D \cdot E}{(A \cdot B - A \cdot D) + B \cdot C} = 0.00000$$



ab = 1.00000
A = 0.62400
B = 0.26558
C = 0.31254
D = 0.22526
E = 0.38524
N1 = 1.60255
N2 = 3.76536
N3 = 3.19958
N4 = 4.43923
N5 = 2.59577

$R_1 - \frac{N_5\cdot((N_1\cdot N_4 - N_2\cdot N_3)+N_3\cdot N_4)}{N_2\cdot N_3} = 0.00000$

$R_1 - \frac{(A\cdot B - A\cdot D)+B\cdot C}{A\cdot D\cdot E} = 0.00000$

$\frac{(A\cdot B - A\cdot D)+B\cdot C}{A\cdot D\cdot E} - \frac{N_5\cdot((N_1\cdot N_4 - N_2\cdot N_3)+N_3\cdot N_4)}{N_2\cdot N_3} = 0.00000$

$R_1 = 1.99735$

$\frac{N_5\cdot((N_1\cdot N_4 - N_2\cdot N_3)+N_3\cdot N_4)}{N_2\cdot N_3} = 1.99735$

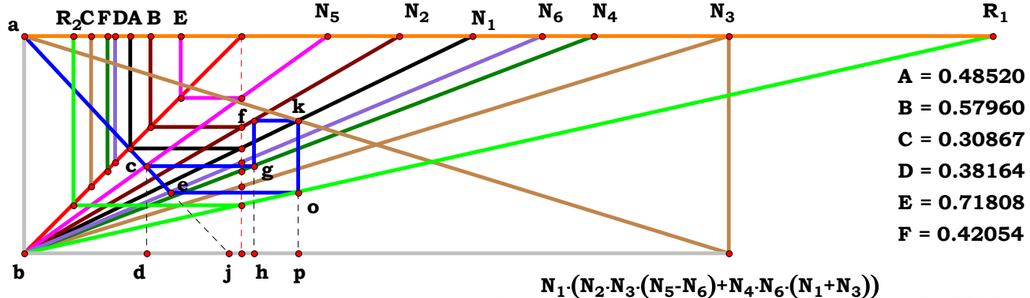
$\frac{(A\cdot B - A\cdot D)+B\cdot C}{A\cdot D\cdot E} = 1.99735$

$R_2 = 0.50066$

$\frac{A\cdot D\cdot E}{(A\cdot B - A\cdot D)+B\cdot C} = 0.50066$

$R_2 - \frac{A\cdot D\cdot E}{(A\cdot B - A\cdot D)+B\cdot C} = 0.00000$

1CST5R8



A = 0.48520
B = 0.57960
C = 0.30867
D = 0.38164
E = 0.71808
F = 0.42054

ab = 1.00000
N_1 = 2.06102
N_2 = 1.72533
N_3 = 3.23973
N_4 = 2.62030
N_5 = 1.39260
N_6 = 2.37787

R_1 = 4.45349

$$\frac{N_1\cdot(N_2\cdot N_3\cdot(N_5-N_6)+N_4\cdot N_6\cdot(N_1+N_3))}{N_2\cdot N_5\cdot(N_1+N_3)} = 4.45349$$

$$\frac{(A\cdot E\cdot(B-D)+B\cdot C\cdot E+A\cdot D\cdot F)}{(A\cdot D\cdot F\cdot(A+C))} = 4.45349$$

$$R_1-\frac{N_1\cdot(N_2\cdot N_3\cdot(N_5-N_6)+N_4\cdot N_6\cdot(N_1+N_3))}{N_2\cdot N_5\cdot(N_1+N_3)} = 0.00000$$

$$R_1-\frac{(A\cdot E\cdot(B-D)+B\cdot C\cdot E+A\cdot D\cdot F)}{(A\cdot D\cdot F\cdot(A+C))} = 0.00000$$

$$\frac{(A\cdot E\cdot(B-D)+B\cdot C\cdot E+A\cdot D\cdot F)}{(A\cdot D\cdot F\cdot(A+C))}-\frac{N_1\cdot(N_2\cdot N_3\cdot(N_5-N_6)+N_4\cdot N_6\cdot(N_1+N_3))}{N_2\cdot N_5\cdot(N_1+N_3)} = 0.00000$$

R_2 = 0.22454

$$\frac{(A\cdot D\cdot F\cdot(A+C))}{(A\cdot E\cdot(B-D)+B\cdot C\cdot E+A\cdot D\cdot F)} = 0.22454$$

$$R_2-\frac{(A\cdot D\cdot F\cdot(A+C))}{(A\cdot E\cdot(B-D)+B\cdot C\cdot E+A\cdot D\cdot F)} = 0.00000$$

Given.

Unit. $ab := 1$ $N_1 := 2.06102$

$N_2 := 1.72533$ $N_3 := 3.23973$

$N_4 := 2.62030$ $N_5 := 1.39260$

$N_6 := 2.37787$

$$A := \frac{1}{N_1} \quad B := \frac{1}{N_2} \quad C := \frac{1}{N_3} \quad D := \frac{1}{N_4} \quad E := \frac{1}{N_5} \quad F := \frac{1}{N_6}$$

Descriptions.

$$bp := \frac{N_1\cdot N_3}{N_1+N_3} \quad kp := \frac{bp}{N_1} \quad bh := N_2\cdot kp$$

$$gh := \frac{bh}{N_4} \quad bd := N_5\cdot gh \quad bj := \frac{bd}{1-gh}$$

$$OP := \frac{bj}{bj+N_6} \quad R_1 := \frac{bp}{OP} \quad R_2 := \frac{1}{R_1}$$

$R_1 = 4.453478$

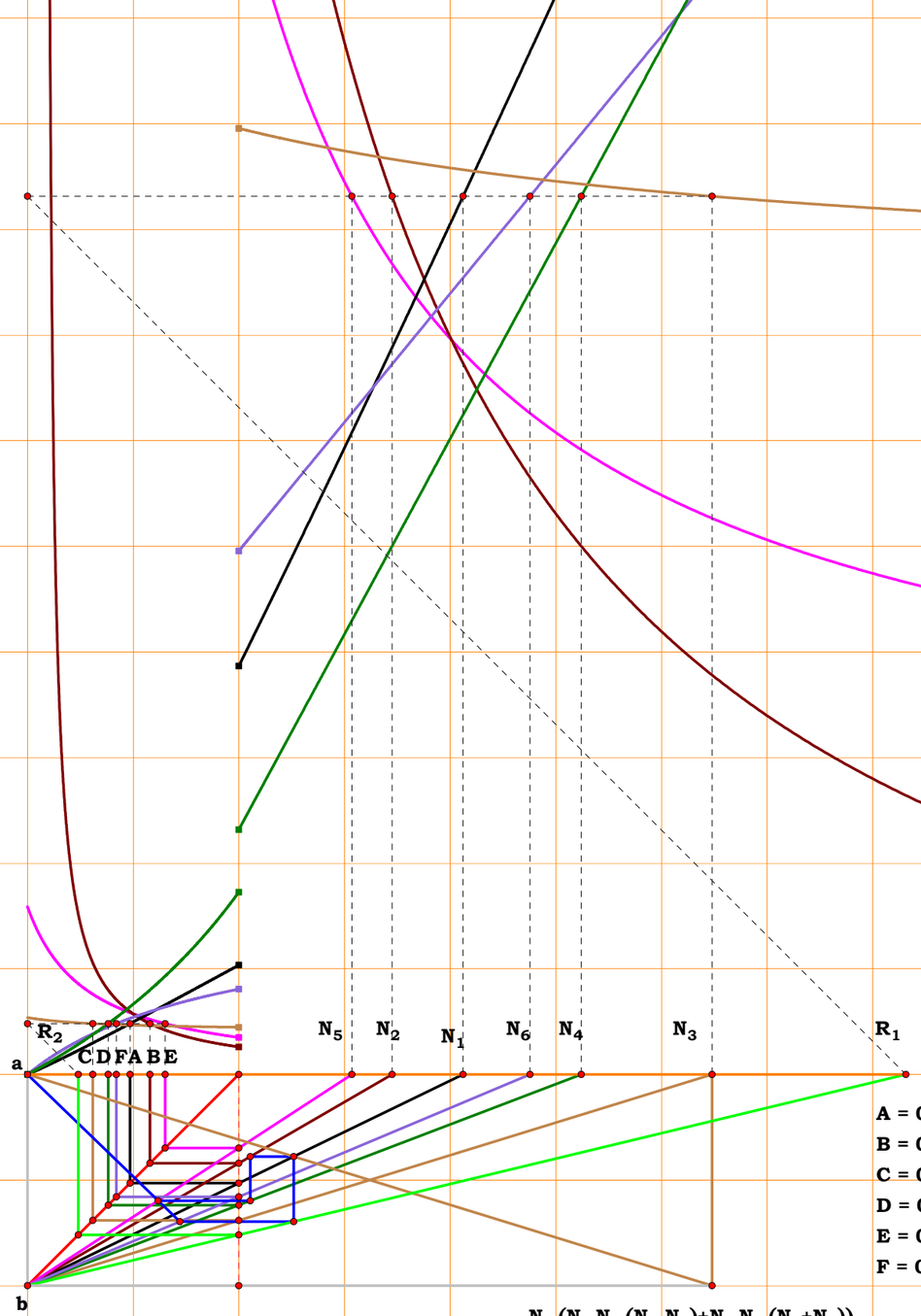
Definitions.

$$R_1-\frac{N_1\cdot\left[N_2\cdot N_3\cdot\left(N_5-N_6\right)+N_4\cdot N_6\cdot\left(N_1+N_3\right)\right]}{N_2\cdot N_5\cdot\left(N_1+N_3\right)} = 0$$

$$N_1-\frac{1}{A} = 0 \quad N_2-\frac{1}{B} = 0 \quad N_3-\frac{1}{C} = 0$$

$$N_4-\frac{1}{D} = 0 \quad N_5-\frac{1}{E} = 0 \quad N_6-\frac{1}{F} = 0$$

$$R_1-\frac{[A\cdot E\cdot(B-D)+B\cdot C\cdot E+A\cdot D\cdot F]}{A\cdot D\cdot F\cdot(A+C)} = 0 \quad R_2-\frac{A\cdot D\cdot F\cdot(A+C)}{[A\cdot E\cdot(B-D)+B\cdot C\cdot E+A\cdot D\cdot F]} = 0$$



$ab = 1.00000$

$N_1 = 2.06102$

$N_2 = 1.72533$

$N_3 = 3.23973$

$N_4 = 2.62030$

$N_5 = 1.53535$

$N_6 = 2.37787$

$A = 0.48520$

$B = 0.57960$

$C = 0.30867$

$D = 0.38164$

$E = 0.65132$

$F = 0.42054$

$R_1 = 4.15653$

$$\frac{N_1\cdot(N_2\cdot N_3\cdot(N_5-N_6)+N_4\cdot N_6\cdot(N_1+N_3))}{N_2\cdot N_5\cdot(N_1+N_3)} = 4.15653$$

$$\frac{(A\cdot E\cdot(B-D)+B\cdot C\cdot E+A\cdot D\cdot F)}{(A\cdot D\cdot F\cdot(A+C))} = 4.15653$$

$$R_1-\frac{N_1\cdot(N_2\cdot N_3\cdot(N_5-N_6)+N_4\cdot N_6\cdot(N_1+N_3))}{N_2\cdot N_5\cdot(N_1+N_3)} = 0.00000$$

$$R_1-\frac{(A\cdot E\cdot(B-D)+B\cdot C\cdot E+A\cdot D\cdot F)}{(A\cdot D\cdot F\cdot(A+C))} = 0.00000$$

$$\frac{(A\cdot E\cdot(B-D)+B\cdot C\cdot E+A\cdot D\cdot F)}{(A\cdot D\cdot F\cdot(A+C))}-\frac{N_1\cdot(N_2\cdot N_3\cdot(N_5-N_6)+N_4\cdot N_6\cdot(N_1+N_3))}{N_2\cdot N_5\cdot(N_1+N_3)} = 0.00000$$

$R_2 = 0.24059$

$$\frac{(A\cdot D\cdot F\cdot(A+C))}{(A\cdot E\cdot(B-D)+B\cdot C\cdot E+A\cdot D\cdot F)} = 0.24059$$

$$R_2-\frac{(A\cdot D\cdot F\cdot(A+C))}{(A\cdot E\cdot(B-D)+B\cdot C\cdot E+A\cdot D\cdot F)} = 0.00000$$

1CST5R9

Given.

Unit. $ab := 1$ $N_1 := 2.31237$

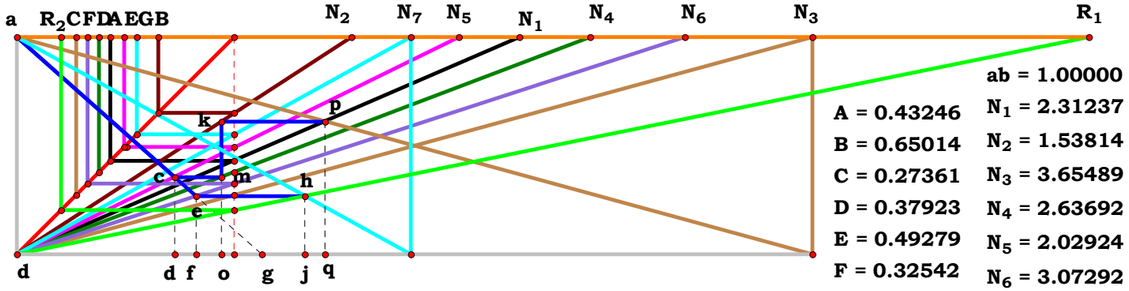
$N_2 := 1.53814$ $N_3 := 3.65489$

$N_4 := 2.63692$ $N_5 := 2.02924$

$N_6 := 3.07292$ $N_7 := 1.81040$

$A := \frac{1}{N_1}$ $B := \frac{1}{N_2}$ $C := \frac{1}{N_3}$ $D := \frac{1}{N_4}$

$E := \frac{1}{N_5}$ $F := \frac{1}{N_6}$ $G := \frac{1}{N_7}$



$A = 0.43246$ $B = 0.65014$ $C = 0.27361$ $D = 0.37923$ $E = 0.49279$ $F = 0.32542$ $G = 0.55236$

$ab = 1.00000$ $N_1 = 2.31237$ $N_2 = 1.53814$ $N_3 = 3.65489$ $N_4 = 2.63692$ $N_5 = 2.02924$ $N_6 = 3.07292$ $N_7 = 1.81040$

$R_1 = 4.93195$

$\frac{N_6 \cdot N_7 \cdot ((N_1 \cdot N_4 - N_2 \cdot N_3) + N_3 \cdot N_4)}{N_2 \cdot N_3 \cdot N_5} = 4.93195$

$\frac{(E \cdot ((A \cdot B - A \cdot D) + B \cdot C))}{(A \cdot D \cdot F \cdot G)} = 4.93195$

$R_1 - \frac{N_6 \cdot N_7 \cdot ((N_1 \cdot N_4 - N_2 \cdot N_3) + N_3 \cdot N_4)}{N_2 \cdot N_3 \cdot N_5} = 0.00000$

$R_1 - \frac{(E \cdot ((A \cdot B - A \cdot D) + B \cdot C))}{(A \cdot D \cdot F \cdot G)} = 0.00000$

$\frac{(E \cdot ((A \cdot B - A \cdot D) + B \cdot C))}{(A \cdot D \cdot F \cdot G)} - \frac{N_6 \cdot N_7 \cdot ((N_1 \cdot N_4 - N_2 \cdot N_3) + N_3 \cdot N_4)}{N_2 \cdot N_3 \cdot N_5} = 0.00000$

$R_2 = 0.20276$

$\frac{(A \cdot D \cdot F \cdot G)}{(E \cdot ((A \cdot B - A \cdot D) + B \cdot C))} = 0.20276$

$R_2 - \frac{(A \cdot D \cdot F \cdot G)}{(E \cdot ((A \cdot B - A \cdot D) + B \cdot C))} = 0.00000$

Descriptions.

$bq := \frac{N_1 \cdot N_3}{N_1 + N_3}$ $ko := \frac{bq}{N_1}$ $bo := N_2 \cdot ko$ $mo := \frac{bo}{N_4}$

$bd := N_5 \cdot mo$ $bg := \frac{bd}{1 - mo}$ $bf := \frac{bg \cdot N_6}{bg + N_6}$ $ef := \frac{bf}{N_6}$

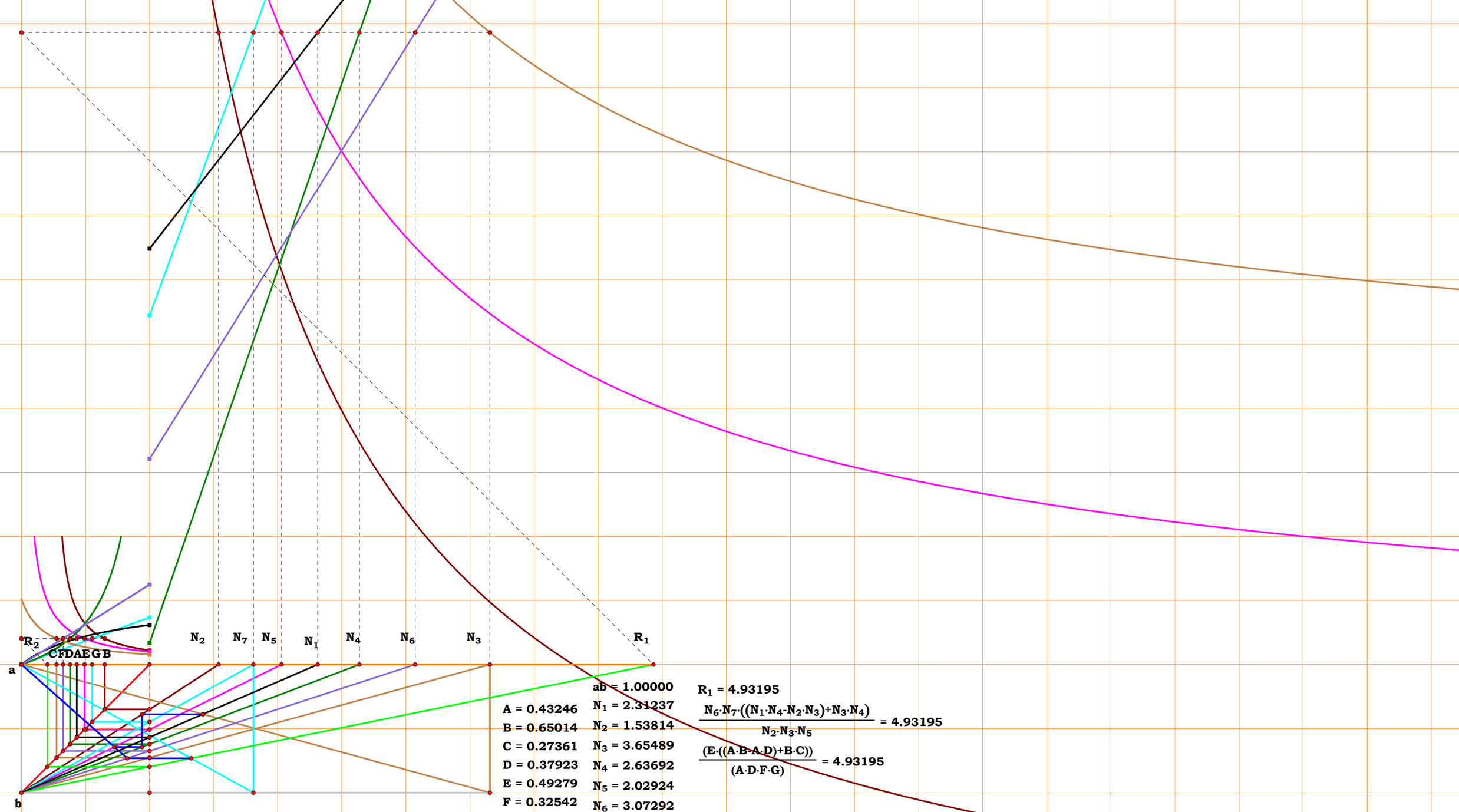
$bj := N_7 \cdot (1 - ef)$ $R_1 := \frac{bj}{ef}$ $R_1 = 4.931985$ $R_2 := \frac{1}{R_1}$

Definitions.

$R_1 - \frac{N_6 \cdot N_7 \cdot (N_1 \cdot N_4 - N_2 \cdot N_3 + N_3 \cdot N_4)}{N_2 \cdot N_3 \cdot N_5} = 0$

$N_1 - \frac{1}{A} = 0$ $N_2 - \frac{1}{B} = 0$ $N_3 - \frac{1}{C} = 0$ $N_4 - \frac{1}{D} = 0$ $N_5 - \frac{1}{E} = 0$ $N_6 - \frac{1}{F} = 0$ $N_7 - \frac{1}{G} = 0$

$R_1 - \frac{E \cdot (A \cdot B - A \cdot D + B \cdot C)}{A \cdot D \cdot F \cdot G} = 0$ $R_2 - \frac{A \cdot D \cdot F \cdot G}{E \cdot (A \cdot B - A \cdot D + B \cdot C)} = 0$



A = 0.43246
B = 0.65014
C = 0.27361
D = 0.37923
E = 0.49279
F = 0.32542
G = 0.55236

ab = 1.00000
N_1 = 2.31237
N_2 = 1.53814
N_3 = 3.65489
N_4 = 2.63692
N_5 = 2.02924
N_6 = 3.07292
N_7 = 1.81040

$R_1 = 4.93195$

$$\frac{N_6 \cdot N_7 \cdot ((N_1 \cdot N_4 - N_2 \cdot N_3) + N_3 \cdot N_4)}{N_2 \cdot N_3 \cdot N_5} = 4.93195$$

$$\frac{(E \cdot ((A \cdot B - A \cdot D) + B \cdot C))}{(A \cdot D \cdot F \cdot G)} = 4.93195$$

$$R_1 - \frac{N_6 \cdot N_7 \cdot ((N_1 \cdot N_4 - N_2 \cdot N_3) + N_3 \cdot N_4)}{N_2 \cdot N_3 \cdot N_5} = 0.00000$$

$$R_1 - \frac{(E \cdot ((A \cdot B - A \cdot D) + B \cdot C))}{(A \cdot D \cdot F \cdot G)} = 0.00000$$

$$\frac{(E \cdot ((A \cdot B - A \cdot D) + B \cdot C))}{(A \cdot D \cdot F \cdot G)} - \frac{N_6 \cdot N_7 \cdot ((N_1 \cdot N_4 - N_2 \cdot N_3) + N_3 \cdot N_4)}{N_2 \cdot N_3 \cdot N_5} = 0.00000$$

$R_2 = 0.20276$

$$\frac{(A \cdot D \cdot F \cdot G)}{(E \cdot ((A \cdot B - A \cdot D) + B \cdot C))} = 0.20276$$

$$R_2 - \frac{(A \cdot D \cdot F \cdot G)}{(E \cdot ((A \cdot B - A \cdot D) + B \cdot C))} = 0.00000$$

1CST5R10

Given.

Unit. $ab := 1$ $N_1 := 3.04914$

$N_2 := 2.21884$ $N_3 := 1.60859$

$N_4 := 3.83666$ $N_5 := 2.49584$

$N_6 := 5.09601$

$A := \frac{1}{N_1}$ $B := \frac{1}{N_2}$ $C := \frac{1}{N_3}$

$D := \frac{1}{N_4}$ $E := \frac{1}{N_5}$ $F := \frac{1}{N_6}$

Descriptions.

$ae := \frac{N_1 \cdot N_3}{N_1 + N_3}$ $ef := \frac{ae}{N_2}$ $ah := N_4 \cdot ef$

$hj := 1 - \frac{ah}{N_5}$ $ac := N_6 \cdot hj$ $R_1 := \frac{ac}{1 - hj}$

$R_1 = 1.889068$ $R_2 := \frac{1}{R_1}$

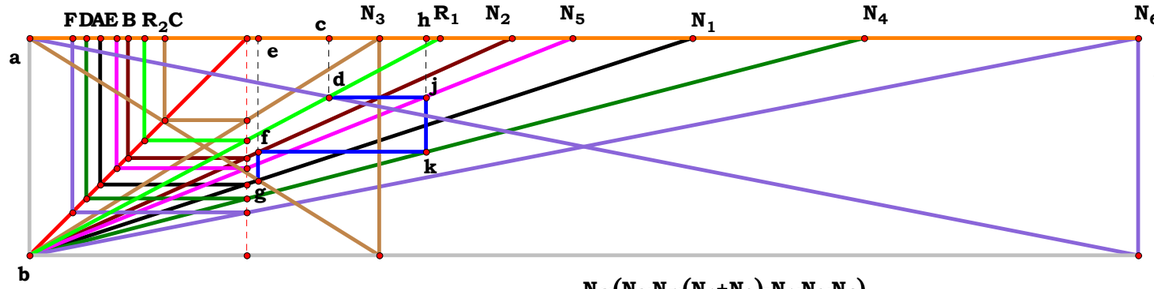
Definitions.

$$R_1 - \frac{N_6 \cdot \left[N_2 \cdot N_5 \cdot \left(N_1 + N_3\right) - N_1 \cdot N_3 \cdot N_4\right]}{N_1 \cdot N_3 \cdot N_4} = 0$$

$N_1 - \frac{1}{A} = 0$ $N_2 - \frac{1}{B} = 0$ $N_3 - \frac{1}{C} = 0$

$N_4 - \frac{1}{D} = 0$ $N_5 - \frac{1}{E} = 0$ $N_6 - \frac{1}{F} = 0$

$R_1 - \frac{(A \cdot D - B \cdot E + C \cdot D)}{B \cdot E \cdot F} = 0$ $R_2 - \frac{B \cdot E \cdot F}{(A \cdot D - B \cdot E + C \cdot D)} = 0$



$A = 0.32796$
$B = 0.45069$
$C = 0.62166$
$D = 0.26064$
$E = 0.40067$
$F = 0.19623$

$ab = 1.00000$
$N_1 = 3.04914$
$N_2 = 2.21884$
$N_3 = 1.60859$
$N_4 = 3.83666$
$N_5 = 2.49584$
$N_6 = 5.09601$

$R_1 = 1.88906$

$$\frac{N_6 \cdot (N_2 \cdot N_5 \cdot (N_1 + N_3) - N_1 \cdot N_3 \cdot N_4)}{N_1 \cdot N_3 \cdot N_4} = 1.88906$$

$$\frac{((A \cdot D - B \cdot E) + C \cdot D)}{(B \cdot E \cdot F)} = 1.88906$$

$$R_1 - \frac{N_6 \cdot (N_2 \cdot N_5 \cdot (N_1 + N_3) - N_1 \cdot N_3 \cdot N_4)}{N_1 \cdot N_3 \cdot N_4} = 0.00000$$

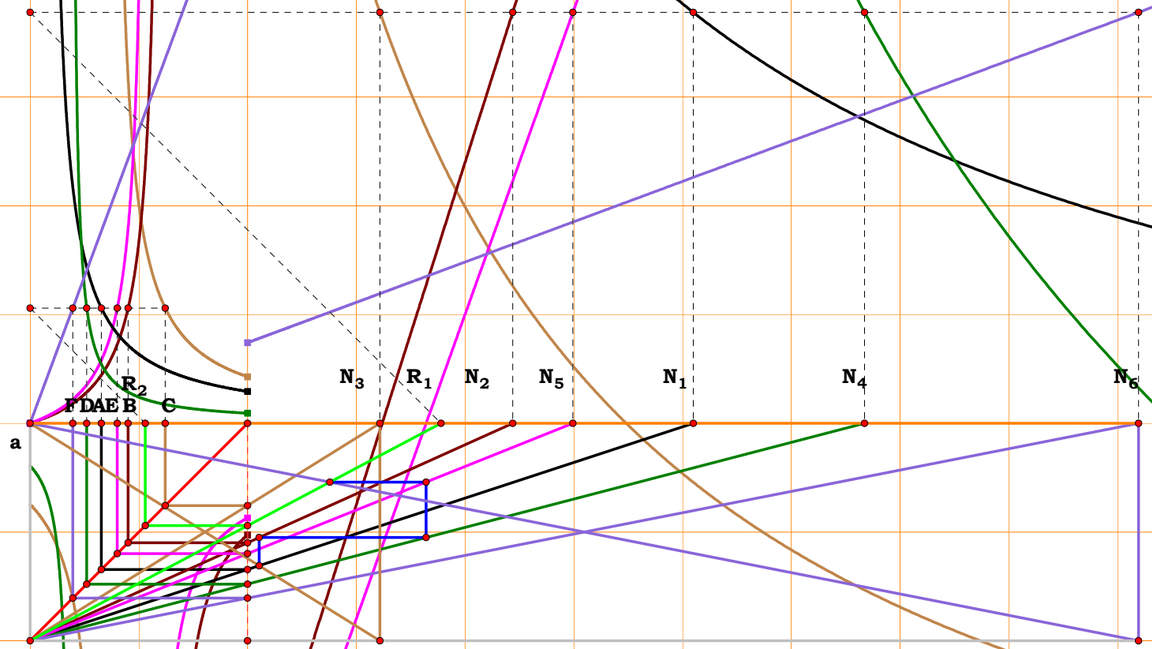
$$R_1 - \frac{((A \cdot D - B \cdot E) + C \cdot D)}{(B \cdot E \cdot F)} = 0.00000$$

$$\frac{((A \cdot D - B \cdot E) + C \cdot D)}{(B \cdot E \cdot F)} - \frac{N_6 \cdot (N_2 \cdot N_5 \cdot (N_1 + N_3) - N_1 \cdot N_3 \cdot N_4)}{N_1 \cdot N_3 \cdot N_4} = 0.00000$$

$R_2 = 0.52936$

$$\frac{(B \cdot E \cdot F)}{((A \cdot D - B \cdot E) + C \cdot D)} = 0.52936$$

$$R_2 - \frac{(B \cdot E \cdot F)}{((A \cdot D - B \cdot E) + C \cdot D)} = 0.00000$$



ab = 1.00000

N_1 = 3.04914

N_2 = 2.21884

N_3 = 1.60859

N_4 = 3.83666

N_5 = 2.49584

N_6 = 5.09601

A = 0.32796

B = 0.45069

C = 0.62166

D = 0.26064

E = 0.40067

F = 0.19623

R_1 = 1.88906

$$\frac{N_6\cdot(N_2\cdot N_5\cdot(N_1+N_3)-N_1\cdot N_3\cdot N_4)}{N_1\cdot N_3\cdot N_4} = 1.88906$$

$$\frac{((A\cdot D-B\cdot E)+C\cdot D)}{(B\cdot E\cdot F)} = 1.88906$$

$$R_1-\frac{N_6\cdot(N_2\cdot N_5\cdot(N_1+N_3)-N_1\cdot N_3\cdot N_4)}{N_1\cdot N_3\cdot N_4} = 0.00000$$

$$R_1-\frac{((A\cdot D-B\cdot E)+C\cdot D)}{(B\cdot E\cdot F)} = 0.00000$$

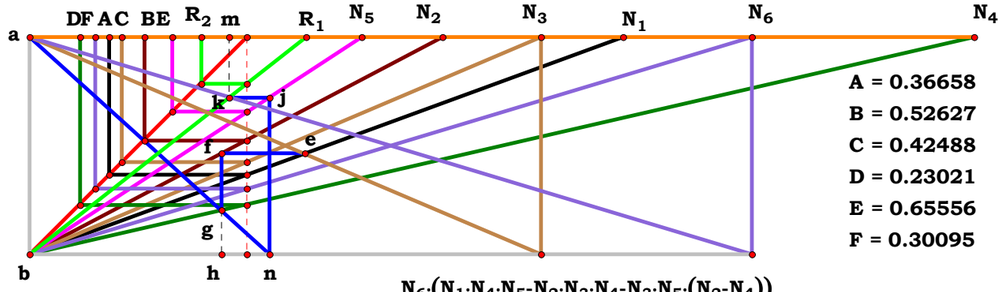
$$\frac{((A\cdot D-B\cdot E)+C\cdot D)}{(B\cdot E\cdot F)}-\frac{N_6\cdot(N_2\cdot N_5\cdot(N_1+N_3)-N_1\cdot N_3\cdot N_4)}{N_1\cdot N_3\cdot N_4} = 0.00000$$

R_2 = 0.52936

$$\frac{(B\cdot E\cdot F)}{((A\cdot D-B\cdot E)+C\cdot D)} = 0.52936$$

$$R_2-\frac{(B\cdot E\cdot F)}{((A\cdot D-B\cdot E)+C\cdot D)} = 0.00000$$

1CST5R11



A = 0.36658
B = 0.52627
C = 0.42488
D = 0.23021
E = 0.65556
F = 0.30095

ab = 1.00000
N_1 = 2.72791
N_2 = 1.90017
N_3 = 2.35362
N_4 = 4.34382
N_5 = 1.52542
N_6 = 3.32276

R_1 = 1.26948

$$\frac{N_6\cdot(N_1\cdot N_4\cdot N_5-N_2\cdot N_3\cdot N_4-N_3\cdot N_5\cdot(N_2-N_4))}{N_2\cdot N_3\cdot N_4} = 1.26948$$

$$\frac{(((A\cdot B-A\cdot D)+B\cdot C)-A\cdot E)}{(A\cdot E\cdot F)} = 1.26948$$

$$R_1-\frac{N_6\cdot(N_1\cdot N_4\cdot N_5-N_2\cdot N_3\cdot N_4-N_3\cdot N_5\cdot(N_2-N_4))}{N_2\cdot N_3\cdot N_4} = 0.00000$$

$$R_1-\frac{(((A\cdot B-A\cdot D)+B\cdot C)-A\cdot E)}{(A\cdot E\cdot F)} = 0.00000$$

$$\frac{(((A\cdot B-A\cdot D)+B\cdot C)-A\cdot E)}{(A\cdot E\cdot F)}-\frac{N_6\cdot(N_1\cdot N_4\cdot N_5-N_2\cdot N_3\cdot N_4-N_3\cdot N_5\cdot(N_2-N_4))}{N_2\cdot N_3\cdot N_4} = 0.00000$$

R_2 = 0.78772

$$\frac{(A\cdot E\cdot F)}{(((A\cdot B-A\cdot D)+B\cdot C)-A\cdot E)} = 0.78772$$

$$R_2-\frac{(A\cdot E\cdot F)}{(((A\cdot B-A\cdot D)+B\cdot C)-A\cdot E)} = 0.00000$$

Given.

Unit. $ab := 1$ $N_1 := 2.72791$

$N_2 := 1.90017$ $N_3 := 2.35362$

$N_4 := 4.34382$ $N_5 := 1.52542$

$N_6 := 3.32276$

$$A := \frac{1}{N_1} \quad B := \frac{1}{N_2} \quad C := \frac{1}{N_3}$$

$$D := \frac{1}{N_4} \quad E := \frac{1}{N_5} \quad F := \frac{1}{N_6}$$

Descriptions.

$$fh := \frac{N_3}{N_1+N_3} \quad bh := N_2\cdot fh \quad gh := \frac{bh}{N_4}$$

$$bn := \frac{bh}{1-gh} \quad jn := \frac{bn}{N_5} \quad am := N_6\cdot(1-jn)$$

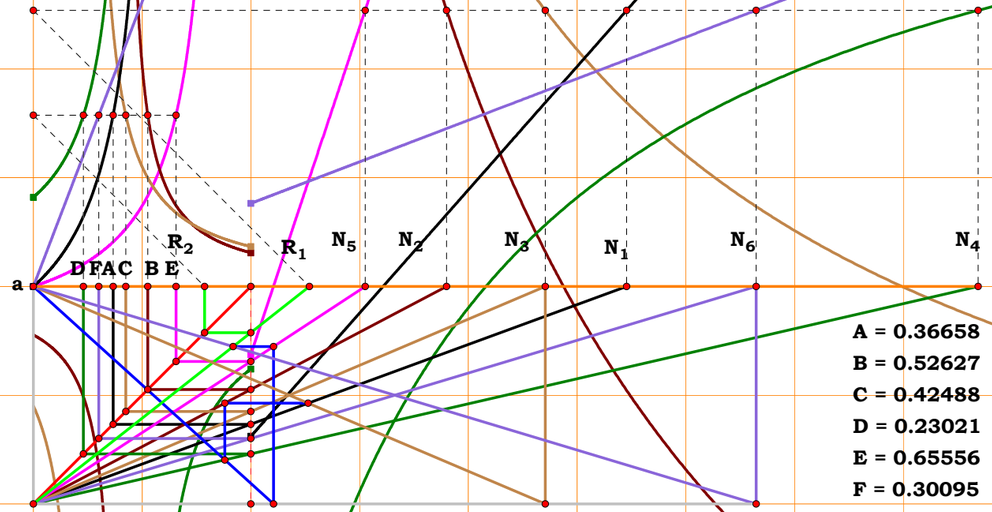
$$R_1 := \frac{am}{jn} \quad R_1 = 1.269479 \quad R_2 := \frac{1}{R_1}$$

Definitions.

$$R_1-\frac{N_6\cdot\left[N_1\cdot N_4\cdot N_5-N_2\cdot N_3\cdot N_4-N_3\cdot N_5\cdot\left(N_2-N_4\right)\right]}{N_2\cdot N_3\cdot N_4} = 0$$

$$N_1-\frac{1}{A}=0 \quad N_2-\frac{1}{B}=0 \quad N_3-\frac{1}{C}=0 \quad N_4-\frac{1}{D}=0 \quad N_5-\frac{1}{E}=0 \quad N_6-\frac{1}{F}=0$$

$$R_1-\frac{(A\cdot B-A\cdot D+B\cdot C-A\cdot E)}{A\cdot E\cdot F}=0 \quad R_2-\frac{A\cdot E\cdot F}{(A\cdot B-A\cdot D+B\cdot C-A\cdot E)}=0$$



ab = 1.00000

N_1 = 2.72791

N_2 = 1.90017

N_3 = 2.35362

N_4 = 4.34382

N_5 = 1.52542

N_6 = 3.32276

A = 0.36658

B = 0.52627

C = 0.42488

D = 0.23021

E = 0.65556

F = 0.30095

R_1 = 1.26948

$$\frac{N_6\cdot(N_1\cdot N_4\cdot N_5-N_2\cdot N_3\cdot N_4-N_3\cdot N_5\cdot(N_2-N_4))}{N_2\cdot N_3\cdot N_4} = 1.26948$$

$$\frac{(((A\cdot B-A\cdot D)+B\cdot C)-A\cdot E)}{(A\cdot E\cdot F)} = 1.26948$$

$$R_1-\frac{N_6\cdot(N_1\cdot N_4\cdot N_5-N_2\cdot N_3\cdot N_4-N_3\cdot N_5\cdot(N_2-N_4))}{N_2\cdot N_3\cdot N_4} = 0.00000$$

$$R_1-\frac{(((A\cdot B-A\cdot D)+B\cdot C)-A\cdot E)}{(A\cdot E\cdot F)} = 0.00000$$

$$\frac{(((A\cdot B-A\cdot D)+B\cdot C)-A\cdot E)}{(A\cdot E\cdot F)}-\frac{N_6\cdot(N_1\cdot N_4\cdot N_5-N_2\cdot N_3\cdot N_4-N_3\cdot N_5\cdot(N_2-N_4))}{N_2\cdot N_3\cdot N_4} = 0.00000$$

R_2 = 0.78772

$$\frac{(A\cdot E\cdot F)}{(((A\cdot B-A\cdot D)+B\cdot C)-A\cdot E)} = 0.78772$$

$$R_2-\frac{(A\cdot E\cdot F)}{(((A\cdot B-A\cdot D)+B\cdot C)-A\cdot E)} = 0.00000$$

1CST5R12

Given.

Unit. $ab := 1$ $N_1 := 2.98779$

$N_2 := 1.52557$ $N_3 := 4.93875$

$N_4 := 2.21620$

$A := \frac{1}{N_1}$ $B := \frac{1}{N_2}$ $C := \frac{1}{N_3}$ $D := \frac{1}{N_4}$

Descriptions.

$ce := \frac{N_3}{N_1 + N_3}$ $be := N_2 \cdot ce$

$de := \frac{be}{N_4}$ $bg := \frac{be}{1 - de}$

$R_1 := \frac{bg}{de}$ $R_1 = 3.880585$ $R_2 := \frac{1}{R_1}$

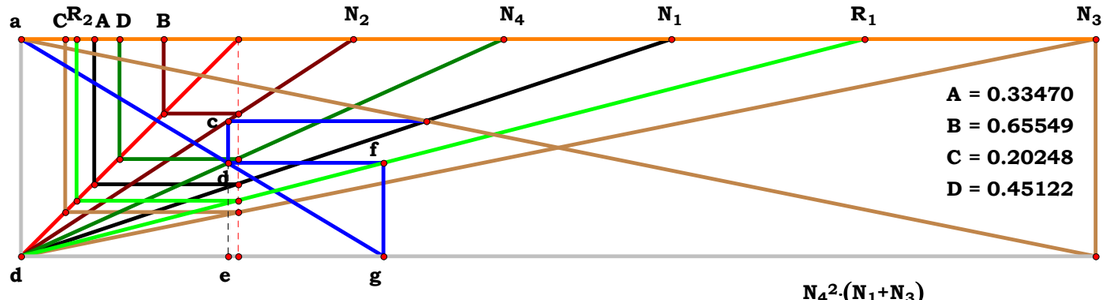
Definitions.

$$R_1 - \frac{N_4^2 \cdot (N_1 + N_3)}{N_1 \cdot N_4 - N_2 \cdot N_3 + N_3 \cdot N_4} = 0$$

$N_1 - \frac{1}{A} = 0$ $N_2 - \frac{1}{B} = 0$

$N_3 - \frac{1}{C} = 0$ $N_4 - \frac{1}{D} = 0$

$R_1 - \frac{B \cdot (A + C)}{D \cdot (A \cdot B - A \cdot D + B \cdot C)} = 0$ $R_2 - \frac{D \cdot (A \cdot B - A \cdot D + B \cdot C)}{B \cdot (A + C)} = 0$



ab = 1.00000
N_1 = 2.98779
N_2 = 1.52557
N_3 = 4.93875
N_4 = 2.21620

A = 0.33470
B = 0.65549
C = 0.20248
D = 0.45122

R_1 = 3.88058

$$\frac{N_4^2 \cdot (N_1 + N_3)}{(N_1 \cdot N_4 - N_2 \cdot N_3) + N_3 \cdot N_4} = 3.88058$$

$$\frac{B \cdot (A + C)}{D \cdot ((A \cdot B - A \cdot D) + B \cdot C)} = 3.88058$$

$$R_1 - \frac{N_4^2 \cdot (N_1 + N_3)}{(N_1 \cdot N_4 - N_2 \cdot N_3) + N_3 \cdot N_4} = 0.00000$$

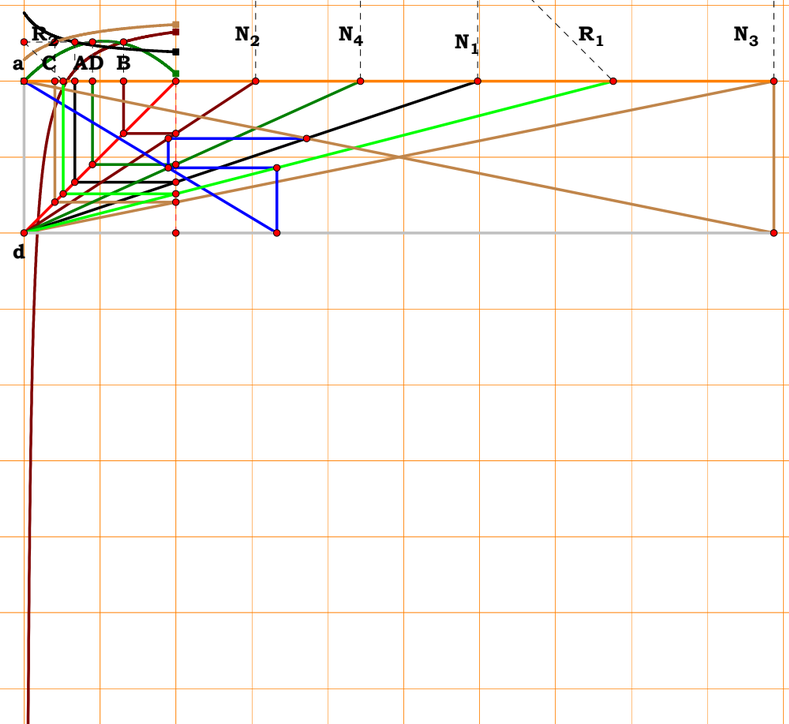
$$R_1 - \frac{B \cdot (A + C)}{D \cdot ((A \cdot B - A \cdot D) + B \cdot C)} = 0.00000$$

$$\frac{B \cdot (A + C)}{D \cdot ((A \cdot B - A \cdot D) + B \cdot C)} - \frac{N_4^2 \cdot (N_1 + N_3)}{(N_1 \cdot N_4 - N_2 \cdot N_3) + N_3 \cdot N_4} = 0.00000$$

R_2 = 0.25769

$$\frac{D \cdot ((A \cdot B - A \cdot D) + B \cdot C)}{B \cdot (A + C)} = 0.25769$$

$$R_2 - \frac{D \cdot ((A \cdot B - A \cdot D) + B \cdot C)}{B \cdot (A + C)} = 0.00000$$



A = 0.33470
B = 0.65549
C = 0.20248
D = 0.45122

ab = 1.00000
N_1 = 2.98779
N_2 = 1.52557
N_3 = 4.93875
N_4 = 2.21620

R_1 = 3.88058

$$\frac{N_4^2\cdot(N_1+N_3)}{(N_1\cdot N_4-N_2\cdot N_3)+N_3\cdot N_4} = 3.88058$$

$$\frac{B\cdot(A+C)}{D\cdot((A\cdot B-A\cdot D)+B\cdot C)} = 3.88058$$

$$R_1-\frac{N_4^2\cdot(N_1+N_3)}{(N_1\cdot N_4-N_2\cdot N_3)+N_3\cdot N_4} = 0.00000$$

$$R_1-\frac{B\cdot(A+C)}{D\cdot((A\cdot B-A\cdot D)+B\cdot C)} = 0.00000$$

$$\frac{B\cdot(A+C)}{D\cdot((A\cdot B-A\cdot D)+B\cdot C)}-\frac{N_4^2\cdot(N_1+N_3)}{(N_1\cdot N_4-N_2\cdot N_3)+N_3\cdot N_4} = 0.00000$$

R_2 = 0.25769

$$\frac{D\cdot((A\cdot B-A\cdot D)+B\cdot C)}{B\cdot(A+C)} = 0.25769$$

$$R_2-\frac{D\cdot((A\cdot B-A\cdot D)+B\cdot C)}{B\cdot(A+C)} = 0.00000$$

1CST5R13

Given.

Unit. $ab := 1 \quad N_1 := 2.82636$

$N_2 := 1.48736 \quad N_3 := 3.33108$

$N_4 := 1.98549$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2} \quad C := \frac{1}{N_3} \quad D := \frac{1}{N_4}$

Descriptions.

$ce := \frac{N_3}{N_1 + N_3} \quad be := N_2 \cdot ce \quad bh := \frac{be}{1 - ce}$

$df := \frac{bh}{bh + N_4} \quad R_1 := \frac{bh}{df}$

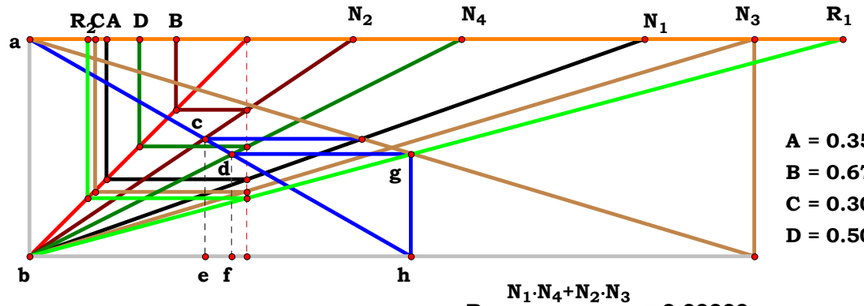
$R_1 = 3.738457 \quad R_2 := \frac{1}{R_1}$

Definitions.

$R_1 - \frac{N_1 \cdot N_4 + N_2 \cdot N_3}{N_1} = 0$

$N_1 - \frac{1}{A} = 0 \quad N_2 - \frac{1}{B} = 0 \quad N_3 - \frac{1}{C} = 0 \quad N_4 - \frac{1}{D} = 0$

$R_1 - \frac{(A \cdot D + B \cdot C)}{B \cdot C \cdot D} = 0 \quad R_2 - \frac{B \cdot C \cdot D}{(A \cdot D + B \cdot C)} = 0$



$A = 0.35381$
$B = 0.67233$
$C = 0.30020$
$D = 0.50365$

$ab = 1.00000$
$N_1 = 2.82636$
$N_2 = 1.48736$
$N_3 = 3.33108$
$N_4 = 1.98549$

$R_1 = 3.73846$

$\frac{N_1 \cdot N_4 + N_2 \cdot N_3}{N_1} = 3.73846$

$\frac{A \cdot D + B \cdot C}{B \cdot C \cdot D} = 3.73846$

$R_1 - \frac{N_1 \cdot N_4 + N_2 \cdot N_3}{N_1} = 0.00000$

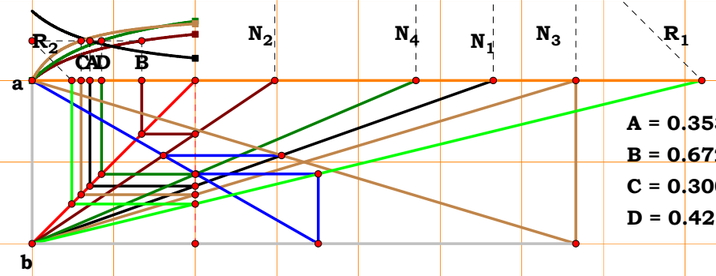
$R_1 - \frac{A \cdot D + B \cdot C}{B \cdot C \cdot D} = 0.00000$

$\frac{A \cdot D + B \cdot C}{B \cdot C \cdot D} - \frac{N_1 \cdot N_4 + N_2 \cdot N_3}{N_1} = 0.00000$

$R_2 = 0.26749$

$\frac{B \cdot C \cdot D}{A \cdot D + B \cdot C} = 0.26749$

$R_2 - \frac{B \cdot C \cdot D}{A \cdot D + B \cdot C} = 0.00000$



A = 0.35381
B = 0.67233
C = 0.30020
D = 0.42528

ab = 1.00000
N_1 = 2.82636
N_2 = 1.48736
N_3 = 3.33108
N_4 = 2.35141

$R_1 = 4.10437$

$$\frac{N_1 \cdot N_4 + N_2 \cdot N_3}{N_1} = 4.10437$$

$$\frac{A \cdot D + B \cdot C}{B \cdot C \cdot D} = 4.10437$$

$$R_1 - \frac{N_1 \cdot N_4 + N_2 \cdot N_3}{N_1} = 0.00000$$

$$R_1 - \frac{A \cdot D + B \cdot C}{B \cdot C \cdot D} = 0.00000$$

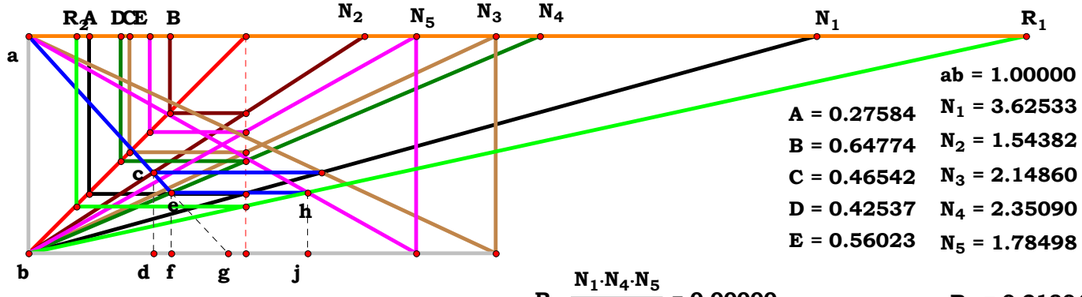
$$\frac{A \cdot D + B \cdot C}{B \cdot C \cdot D} - \frac{N_1 \cdot N_4 + N_2 \cdot N_3}{N_1} = 0.00000$$

$R_2 = 0.24364$

$$\frac{B \cdot C \cdot D}{A \cdot D + B \cdot C} = 0.24364$$

$$R_2 - \frac{B \cdot C \cdot D}{A \cdot D + B \cdot C} = 0.00000$$

1CST5R14



ab = 1.00000
N_1 = 3.62533
N_2 = 1.54382
N_3 = 2.14860
N_4 = 2.35090
N_5 = 1.78498

A = 0.27584
B = 0.64774
C = 0.46542
D = 0.42537
E = 0.56023

R_1 = 4.58628

$\frac{N_1 \cdot N_4 \cdot N_5}{N_2 \cdot N_3}$ = 4.58628

$\frac{B \cdot C}{A \cdot D \cdot E}$ = 4.58628

$R_1 - \frac{N_1 \cdot N_4 \cdot N_5}{N_2 \cdot N_3}$ = 0.00000

$R_1 - \frac{N_1 \cdot N_4 \cdot N_5}{N_2 \cdot N_3}$ = 0.00000

$\frac{B \cdot C}{A \cdot D \cdot E} - \frac{N_1 \cdot N_4 \cdot N_5}{N_2 \cdot N_3}$ = 0.00000

R_2 = 0.21804

$\frac{A \cdot D \cdot E}{B \cdot C}$ = 0.21804

$R_2 - \frac{A \cdot D \cdot E}{B \cdot C}$ = 0.00000

Given.

Unit. $ab := 1$ $N_1 := 3.62533$

$N_2 := 1.54382$ $N_3 := 2.14860$

$N_4 := 2.35090$ $N_5 := 1.78498$

$$A := \frac{1}{N_1} \quad B := \frac{1}{N_2} \quad C := \frac{1}{N_3} \quad D := \frac{1}{N_4} \quad E := \frac{1}{N_5}$$

Descriptions.

$$cd := \frac{N_3}{N_1 + N_3} \qquad bd := N_2 \cdot cd$$

$$bg := \frac{bd}{1 - cd} \qquad ef := \frac{bg}{bg + N_4}$$

$$bj := N_5 \cdot (1 - ef) \qquad R_1 := \frac{bj}{ef}$$

$R_1 = 4.586304$ $R_2 := \frac{1}{R_1}$

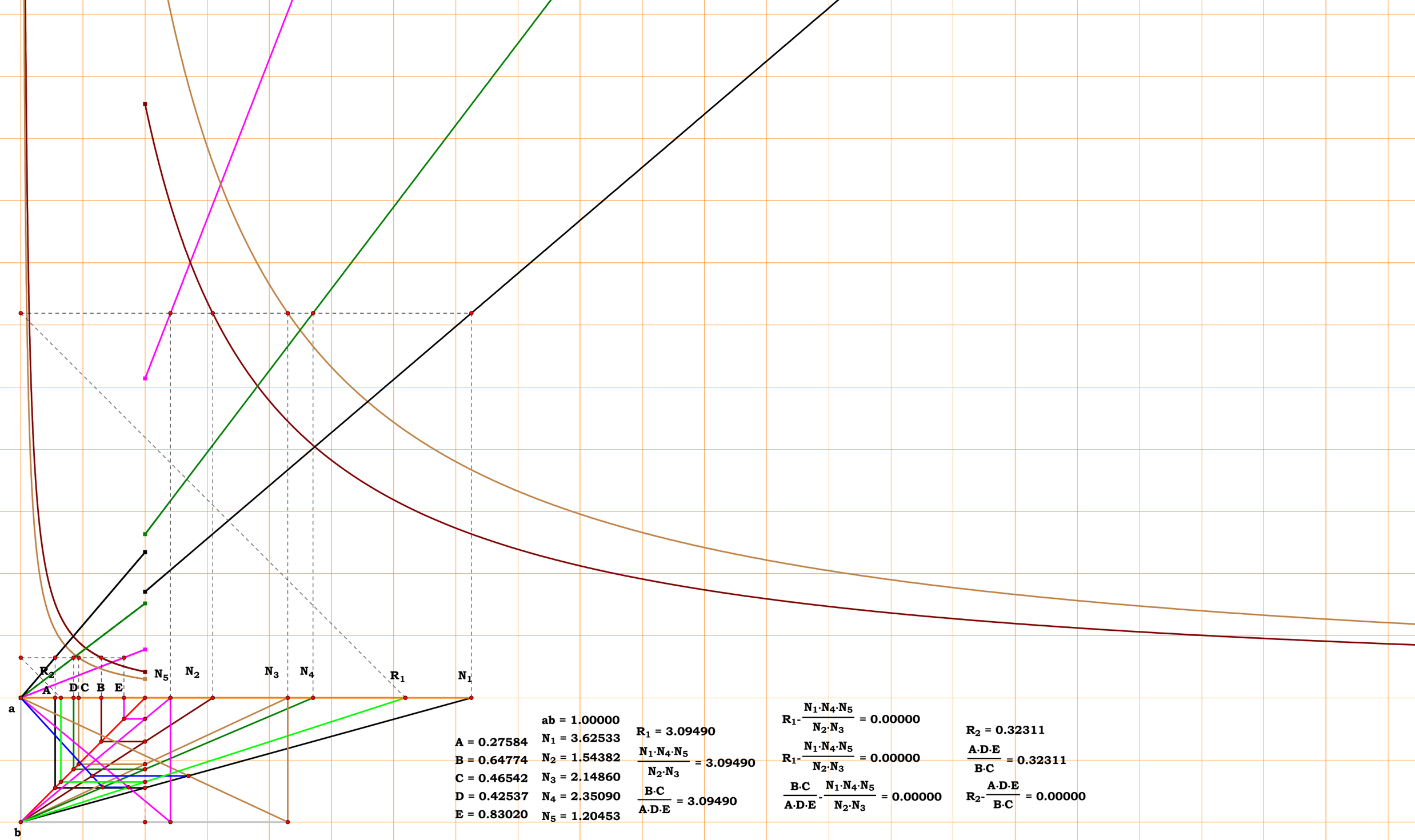
Definitions.

$$R_1 - \frac{N_1 \cdot N_4 \cdot N_5}{N_2 \cdot N_3} = 0$$

$$N_1 - \frac{1}{A} = 0 \qquad N_2 - \frac{1}{B} = 0$$

$$N_3 - \frac{1}{C} = 0 \qquad N_4 - \frac{1}{D} = 0 \qquad N_5 - \frac{1}{E} = 0$$

$$R_1 - \frac{B \cdot C}{A \cdot D \cdot E} = 0 \qquad R_2 - \frac{A \cdot D \cdot E}{B \cdot C} = 0$$



ab = 1.00000

A = 0.27584
B = 0.64774
C = 0.46542
D = 0.42537
E = 0.83020

N_1 = 3.62533
N_2 = 1.54382
N_3 = 2.14860
N_4 = 2.35090
N_5 = 1.20453

R_1 = 3.09490

$$\frac{N_1 \cdot N_4 \cdot N_5}{N_2 \cdot N_3} = 3.09490$$

$$\frac{B \cdot C}{A \cdot D \cdot E} = 3.09490$$

$$R_1 - \frac{N_1 \cdot N_4 \cdot N_5}{N_2 \cdot N_3} = 0.00000$$

$$R_1 - \frac{N_1 \cdot N_4 \cdot N_5}{N_2 \cdot N_3} = 0.00000$$

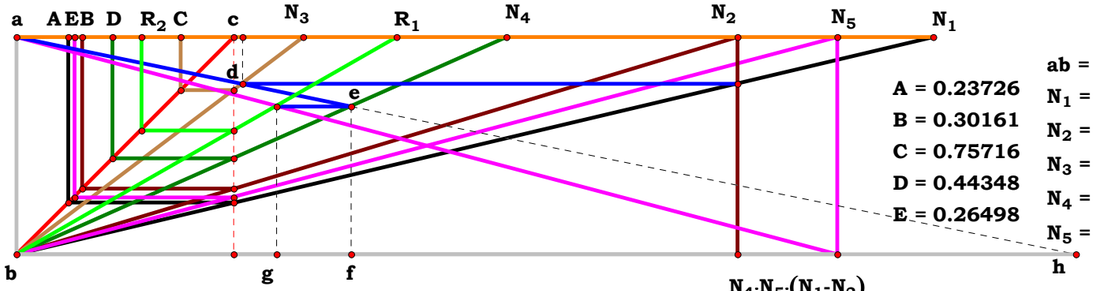
$$\frac{B \cdot C}{A \cdot D \cdot E} - \frac{N_1 \cdot N_4 \cdot N_5}{N_2 \cdot N_3} = 0.00000$$

R_2 = 0.32311

$$\frac{A \cdot D \cdot E}{B \cdot C} = 0.32311$$

$$R_2 - \frac{A \cdot D \cdot E}{B \cdot C} = 0.00000$$

1CST6R0



ab = 1.00000

A = 0.23726
B = 0.30161
C = 0.75716
D = 0.44348
E = 0.26498

$N_1 = 4.21484$
$N_2 = 3.31553$
$N_3 = 1.32073$
$N_4 = 2.25490$
$N_5 = 3.77387$

$R_1 = 1.74766$

$\frac{N_4 \cdot N_5 \cdot (N_1 - N_2)}{N_2 \cdot N_3} = 1.74766$

$\frac{(C \cdot (B-A))}{(A \cdot D \cdot E)} = 1.74766$

Given.

Unit. $AB := 1$ $N_1 := 4.21484$

$N_2 := 3.31553$ $N_3 := 1.32073$

$N_4 := 2.25490$ $N_5 := 3.77387$

$A := \frac{1}{N_1}$ $B := \frac{1}{N_2}$ $C := \frac{1}{N_3}$ $D := \frac{1}{N_4}$ $E := \frac{1}{N_5}$

Descriptions.

$CD := 1 - \frac{N_2}{N_1}$ $AC := N_3 \cdot (1 - CD)$

$BH := \frac{AC}{CD}$ $EF := \frac{BH}{BH + N_4}$

$BG := N_5 \cdot (1 - EF)$ $R_1 := \frac{BG}{EF}$

$R_1 = 1.747659$ $R_2 := \frac{1}{R_1}$

Definitions.

$R_1 - \frac{N_4 \cdot N_5 \cdot (N_1 - N_2)}{N_2 \cdot N_3} = 0$

$N_1 - \frac{1}{A} = 0$ $N_2 - \frac{1}{B} = 0$

$N_3 - \frac{1}{C} = 0$ $N_4 - \frac{1}{D} = 0$ $N_5 - \frac{1}{E} = 0$

$R_1 - \frac{C \cdot (B - A)}{A \cdot D \cdot E} = 0$ $R_2 - \frac{A \cdot D \cdot E}{C \cdot (B - A)} = 0$

$R_1 - \frac{N_4 \cdot N_5 \cdot (N_1 - N_2)}{N_2 \cdot N_3} = 0.00000$

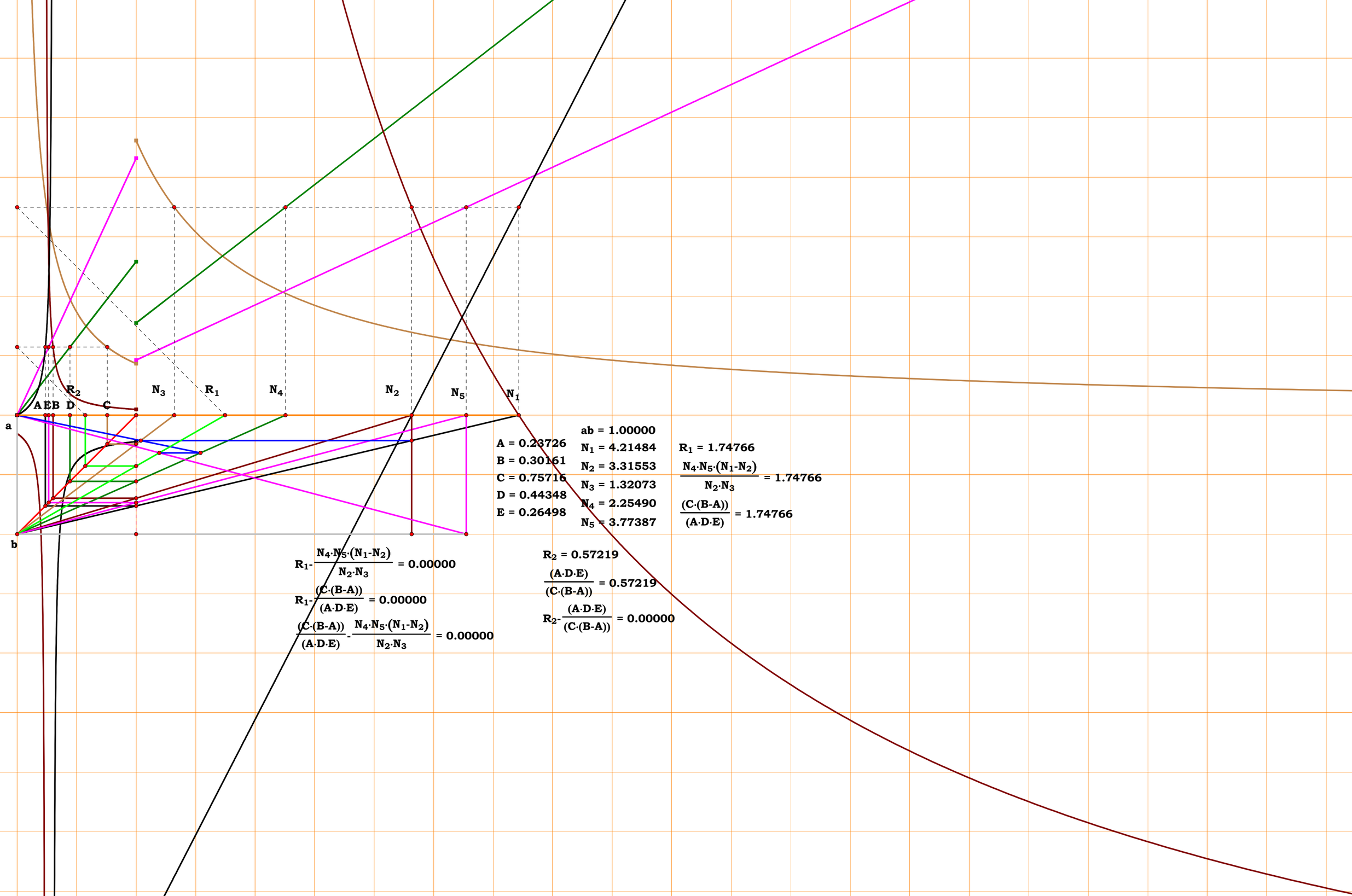
$R_1 - \frac{(C \cdot (B-A))}{(A \cdot D \cdot E)} = 0.00000$

$\frac{(C \cdot (B-A))}{(A \cdot D \cdot E)} - \frac{N_4 \cdot N_5 \cdot (N_1 - N_2)}{N_2 \cdot N_3} = 0.00000$

$R_2 = 0.57219$

$\frac{(A \cdot D \cdot E)}{(C \cdot (B-A))} = 0.57219$

$R_2 - \frac{(A \cdot D \cdot E)}{(C \cdot (B-A))} = 0.00000$



ab = 1.00000
N_1 = 4.21484
N_2 = 3.31553
N_3 = 1.32073
N_4 = 2.25490
N_5 = 3.77387

A = 0.23726
B = 0.30161
C = 0.75716
D = 0.44348
E = 0.26498

$R_1 = 1.74766$

$\frac{N_4 \cdot N_5 \cdot (N_1 - N_2)}{N_2 \cdot N_3} = 1.74766$

$\frac{(C \cdot (B-A))}{(A \cdot D \cdot E)} = 1.74766$

$R_1 - \frac{N_4 \cdot N_5 \cdot (N_1 - N_2)}{N_2 \cdot N_3} = 0.00000$

$R_1 - \frac{(C \cdot (B-A))}{(A \cdot D \cdot E)} = 0.00000$

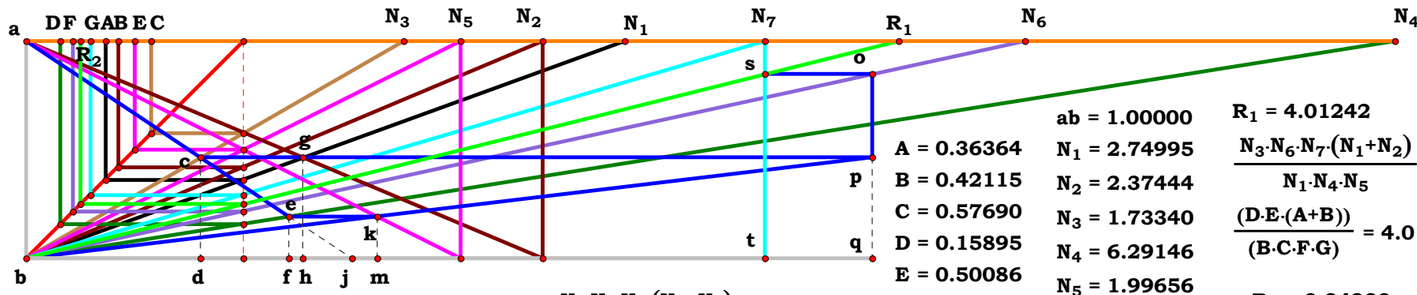
$\frac{(C \cdot (B-A))}{(A \cdot D \cdot E)} - \frac{N_4 \cdot N_5 \cdot (N_1 - N_2)}{N_2 \cdot N_3} = 0.00000$

$R_2 = 0.57219$

$\frac{(A \cdot D \cdot E)}{(C \cdot (B-A))} = 0.57219$

$R_2 - \frac{(A \cdot D \cdot E)}{(C \cdot (B-A))} = 0.00000$

1CST6R1



Given.

Unit. $AB := 1$ $N_1 := 2.74995$

$N_2 := 2.37444$ $N_3 := 1.73340$ $N_4 := 6.29146$

$N_5 := 1.99656$ $N_6 := 4.59329$ $N_7 := 3.39704$

$A := \frac{1}{N_1}$ $B := \frac{1}{N_2}$ $C := \frac{1}{N_3}$ $D := \frac{1}{N_4}$ $E := \frac{1}{N_5}$ $F := \frac{1}{N_6}$ $G := \frac{1}{N_7}$

$A = 0.36364$ $B = 0.42115$ $C = 0.57690$ $D = 0.15895$ $E = 0.50086$ $F = 0.21771$ $G = 0.29437$

$ab = 1.00000$ $N_1 = 2.74995$ $N_2 = 2.37444$ $N_3 = 1.73340$ $N_4 = 6.29146$ $N_5 = 1.99656$ $N_6 = 4.59329$ $N_7 = 3.39704$

$R_1 = 4.01242$

$\frac{N_3 \cdot N_6 \cdot N_7 \cdot (N_1 + N_2)}{N_1 \cdot N_4 \cdot N_5} = 4.01242$

$\frac{(D \cdot E \cdot (A+B))}{(B \cdot C \cdot F \cdot G)} = 4.01242$

$R_2 = 0.24923$

$\frac{(B \cdot C \cdot F \cdot G)}{(D \cdot E \cdot (A+B))} = 0.24923$

$R_2 - \frac{(B \cdot C \cdot F \cdot G)}{(D \cdot E \cdot (A+B))} = 0.00000$

$R_1 - \frac{N_3 \cdot N_6 \cdot N_7 \cdot (N_1 + N_2)}{N_1 \cdot N_4 \cdot N_5} = 0.00000$

$R_1 - \frac{(D \cdot E \cdot (A+B))}{(B \cdot C \cdot F \cdot G)} = 0.00000$

$\frac{(D \cdot E \cdot (A+B))}{(B \cdot C \cdot F \cdot G)} - \frac{N_3 \cdot N_6 \cdot N_7 \cdot (N_1 + N_2)}{N_1 \cdot N_4 \cdot N_5} = 0.00000$

Descriptions.

$GH := \frac{N_2}{N_1 + N_2}$ $BD := N_3 \cdot GH$ $BJ := \frac{BD}{1 - GH}$

$EF := \frac{BJ}{BJ + N_4}$ $BM := N_5 \cdot (1 - EF)$ $BQ := \frac{BM \cdot GH}{EF}$

$OQ := \frac{BQ}{N_6}$ $R_1 := \frac{N_7}{OQ}$

$R_1 = 4.012425$ $R_2 := \frac{1}{R_1}$

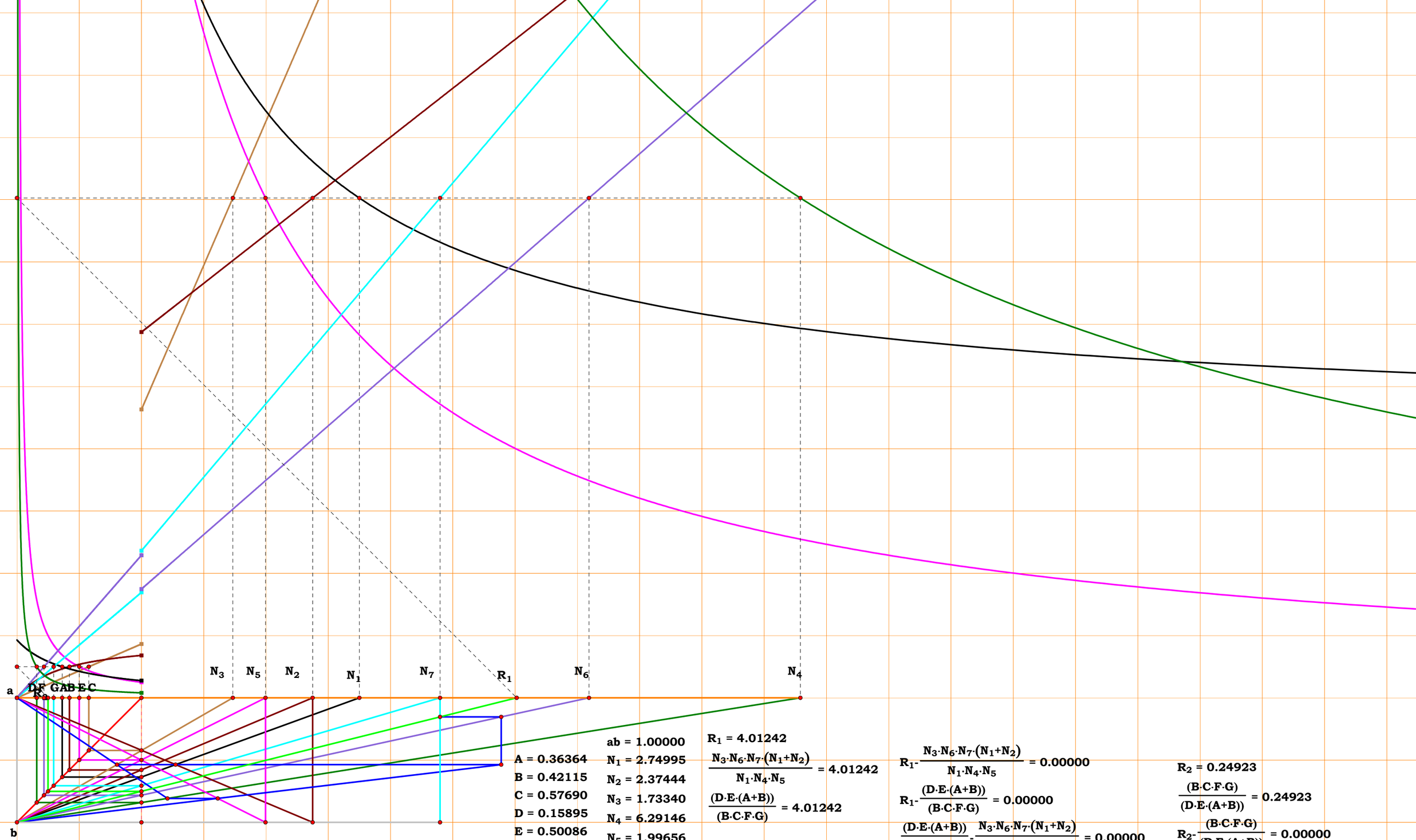
Definitions.

$R_1 - \frac{N_3 \cdot N_6 \cdot N_7 \cdot (N_1 + N_2)}{N_1 \cdot N_4 \cdot N_5} = 0$

$N_1 - \frac{1}{A} = 0$ $N_2 - \frac{1}{B} = 0$ $N_3 - \frac{1}{C} = 0$ $N_4 - \frac{1}{D} = 0$

$N_5 - \frac{1}{E} = 0$ $N_6 - \frac{1}{F} = 0$ $N_7 - \frac{1}{G} = 0$

$R_1 - \frac{D \cdot E \cdot (A + B)}{B \cdot C \cdot F \cdot G} = 0$ $R_2 - \frac{B \cdot C \cdot F \cdot G}{D \cdot E \cdot (A + B)} = 0$



ab = 1.00000
N_1 = 2.74995
N_2 = 2.37444
N_3 = 1.73340
N_4 = 6.29146
N_5 = 1.99656
N_6 = 4.59329
N_7 = 3.39704

A = 0.36364
B = 0.42115
C = 0.57690
D = 0.15895
E = 0.50086
F = 0.21771
G = 0.29437

$R_1 = 4.01242$

$$\frac{N_3 \cdot N_6 \cdot N_7 \cdot (N_1+N_2)}{N_1 \cdot N_4 \cdot N_5} = 4.01242$$

$$\frac{(D \cdot E \cdot (A+B))}{(B \cdot C \cdot F \cdot G)} = 4.01242$$

$$R_1 - \frac{N_3 \cdot N_6 \cdot N_7 \cdot (N_1+N_2)}{N_1 \cdot N_4 \cdot N_5} = 0.00000$$

$$R_1 - \frac{(D \cdot E \cdot (A+B))}{(B \cdot C \cdot F \cdot G)} = 0.00000$$

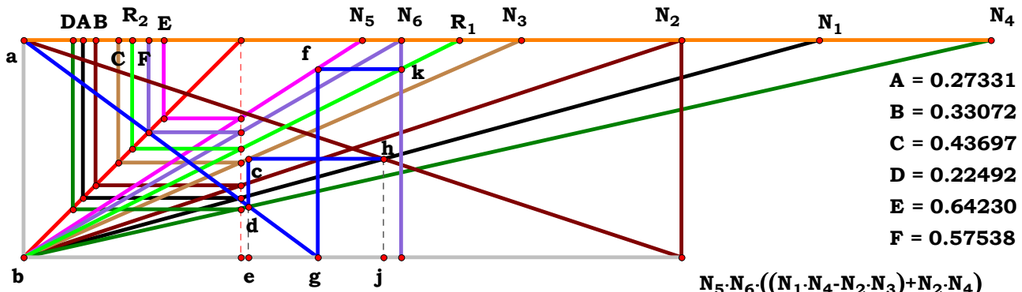
$$\frac{(D \cdot E \cdot (A+B))}{(B \cdot C \cdot F \cdot G)} - \frac{N_3 \cdot N_6 \cdot N_7 \cdot (N_1+N_2)}{N_1 \cdot N_4 \cdot N_5} = 0.00000$$

$R_2 = 0.24923$

$$\frac{(B \cdot C \cdot F \cdot G)}{(D \cdot E \cdot (A+B))} = 0.24923$$

$$R_2 - \frac{(B \cdot C \cdot F \cdot G)}{(D \cdot E \cdot (A+B))} = 0.00000$$

1CST6R2



ab = 1.00000
A = 0.27331
B = 0.33072
C = 0.43697
D = 0.22492
E = 0.64230
F = 0.57538
$N_1 = 3.65886$
$N_2 = 3.02367$
$N_3 = 2.28849$
$N_4 = 4.44602$
$N_5 = 1.55690$
$N_6 = 1.73798$

$R_1 = 2.00454$

$$\frac{N_5 \cdot N_6 \cdot ((N_1 \cdot N_4 - N_2 \cdot N_3) + N_2 \cdot N_4)}{N_2 \cdot N_3 \cdot N_4} = 2.00454$$

$$\frac{((A \cdot C - A \cdot D) + B \cdot C)}{(A \cdot E \cdot F)} = 2.00454$$

Given.

Unit. $AB := 1$ $N_1 := 3.65886$

$N_2 := 3.02367$ $N_3 := 2.28849$

$N_4 := 4.44602$ $N_5 := 1.55690$ $N_6 := 1.73798$

$$A := \frac{1}{N_1} \quad B := \frac{1}{N_2} \quad C := \frac{1}{N_3} \quad D := \frac{1}{N_4} \quad E := \frac{1}{N_5} \quad F := \frac{1}{N_6}$$

Descriptions.

$$HJ := \frac{N_2}{N_1 + N_2} \qquad BE := N_3 \cdot HJ$$

$$DE := \frac{BE}{N_4} \qquad BG := \frac{BE}{1 - DE}$$

$$FG := \frac{BG}{N_5} \qquad R_1 := \frac{N_6}{FG}$$

$R_1 = 2.004539$ $\quad R_2 := \frac{1}{R_1}$

Definitions.

$$R_1 - \frac{N_5 \cdot N_6 \cdot (N_1 \cdot N_4 - N_2 \cdot N_3 + N_2 \cdot N_4)}{N_2 \cdot N_3 \cdot N_4} = 0$$

$$N_1 - \frac{1}{A} = 0 \qquad N_2 - \frac{1}{B} = 0 \qquad N_3 - \frac{1}{C} = 0$$

$$N_4 - \frac{1}{D} = 0 \qquad N_5 - \frac{1}{E} = 0 \qquad N_6 - \frac{1}{F} = 0$$

$$R_1 - \frac{(A \cdot C - A \cdot D + B \cdot C)}{A \cdot E \cdot F} = 0 \qquad R_2 - \frac{A \cdot E \cdot F}{(A \cdot C - A \cdot D + B \cdot C)} = 0$$

$$R_1 - \frac{N_5 \cdot N_6 \cdot ((N_1 \cdot N_4 - N_2 \cdot N_3) + N_2 \cdot N_4)}{N_2 \cdot N_3 \cdot N_4} = 0.00000$$

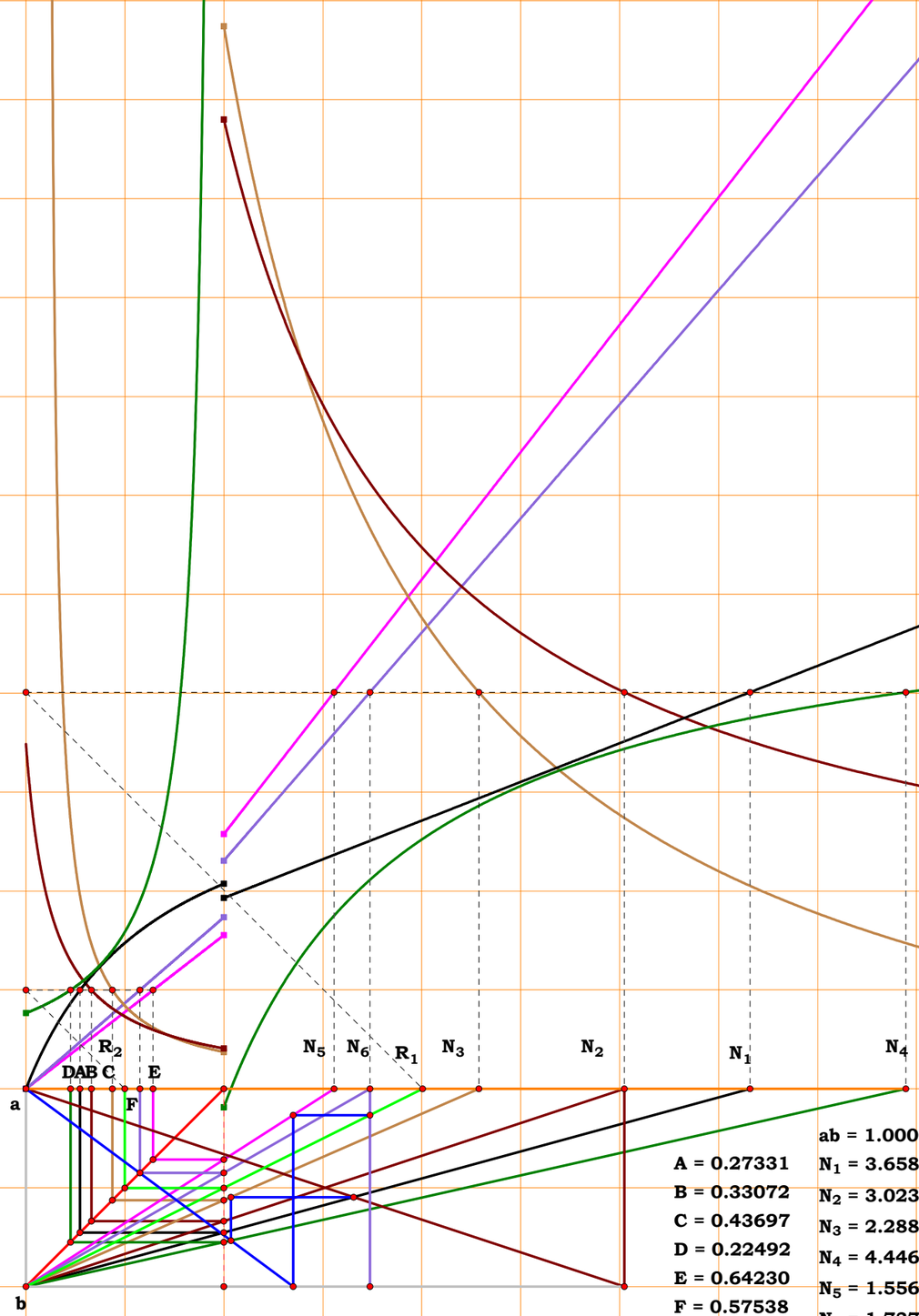
$$R_1 - \frac{((A \cdot C - A \cdot D) + B \cdot C)}{(A \cdot E \cdot F)} = 0.00000$$

$$\frac{((A \cdot C - A \cdot D) + B \cdot C)}{(A \cdot E \cdot F)} - \frac{N_5 \cdot N_6 \cdot ((N_1 \cdot N_4 - N_2 \cdot N_3) + N_2 \cdot N_4)}{N_2 \cdot N_3 \cdot N_4} = 0.00000$$

$R_2 = 0.49887$

$$\frac{(A \cdot E \cdot F)}{((A \cdot C - A \cdot D) + B \cdot C)} = 0.49887$$

$$R_2 - \frac{(A \cdot E \cdot F)}{((A \cdot C - A \cdot D) + B \cdot C)} = 0.00000$$



A = 0.27331
B = 0.33072
C = 0.43697
D = 0.22492
E = 0.64230
F = 0.57538

ab = 1.00000
N_1 = 3.65886
N_2 = 3.02367
N_3 = 2.28849
N_4 = 4.44602
N_5 = 1.55690
N_6 = 1.73798

$R_1 = 2.00454$

$$\frac{N_5 \cdot N_6 \cdot ((N_1 \cdot N_4 - N_2 \cdot N_3) + N_2 \cdot N_4)}{N_2 \cdot N_3 \cdot N_4} = 2.00454$$

$$\frac{((A \cdot C - A \cdot D) + B \cdot C)}{(A \cdot E \cdot F)} = 2.00454$$

$$R_1 - \frac{N_5 \cdot N_6 \cdot ((N_1 \cdot N_4 - N_2 \cdot N_3) + N_2 \cdot N_4)}{N_2 \cdot N_3 \cdot N_4} = 0.00000$$

$$R_1 - \frac{((A \cdot C - A \cdot D) + B \cdot C)}{(A \cdot E \cdot F)} = 0.00000$$

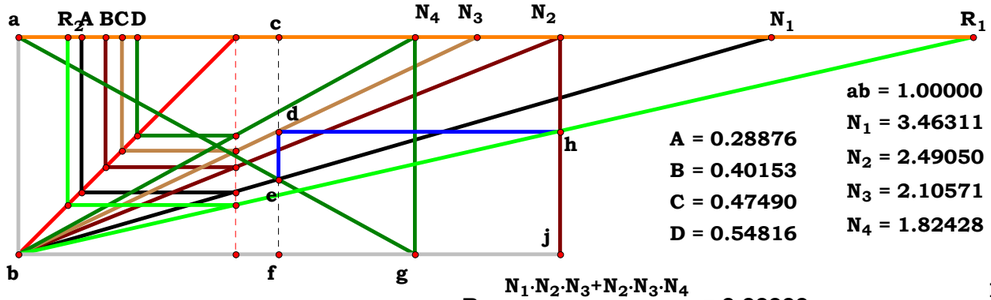
$$\frac{((A \cdot C - A \cdot D) + B \cdot C)}{(A \cdot E \cdot F)} - \frac{N_5 \cdot N_6 \cdot ((N_1 \cdot N_4 - N_2 \cdot N_3) + N_2 \cdot N_4)}{N_2 \cdot N_3 \cdot N_4} = 0.00000$$

$R_2 = 0.49887$

$$\frac{(A \cdot E \cdot F)}{((A \cdot C - A \cdot D) + B \cdot C)} = 0.49887$$

$$R_2 - \frac{(A \cdot E \cdot F)}{((A \cdot C - A \cdot D) + B \cdot C)} = 0.00000$$

1CST6R3



ab = 1.00000
N_1 = 3.46311
N_2 = 2.49050
N_3 = 2.10571
N_4 = 1.82428

A = 0.28876
B = 0.40153
C = 0.47490
D = 0.54816

R_1 = 4.38903

$$\frac{N_1 \cdot N_2 \cdot N_3 + N_2 \cdot N_3 \cdot N_4}{N_1 \cdot N_4} = 4.38903$$

$$\frac{(A+D)}{(B \cdot C)} = 4.38903$$

Given.

Unit. $AB := 1$ $N_1 := 3.46311$

$N_2 := 2.49050$ $N_3 := 2.10571$ $N_4 := 1.82428$

$$A := \frac{1}{N_1} \quad B := \frac{1}{N_2} \quad C := \frac{1}{N_3} \quad D := \frac{1}{N_4}$$

Descriptions.

$$BF := \frac{N_1 \cdot N_4}{N_1 + N_4} \quad CD := \frac{N_3 - BF}{N_3} \quad R_1 := \frac{N_2}{1 - CD}$$

$R_1 = 4.389031$ $R_2 := \frac{1}{R_1}$

Definitions.

$$R_1 - \frac{N_1 \cdot N_2 \cdot N_3 + N_2 \cdot N_3 \cdot N_4}{N_1 \cdot N_4} = 0$$

$$N_1 - \frac{1}{A} = 0 \quad N_2 - \frac{1}{B} = 0$$

$$N_3 - \frac{1}{C} = 0 \quad N_4 - \frac{1}{D} = 0$$

$$R_1 - \frac{(A + D)}{B \cdot C} = 0 \quad R_2 - \frac{B \cdot C}{(A + D)} = 0$$

$$R_1 - \frac{N_1 \cdot N_2 \cdot N_3 + N_2 \cdot N_3 \cdot N_4}{N_1 \cdot N_4} = 0.00000$$

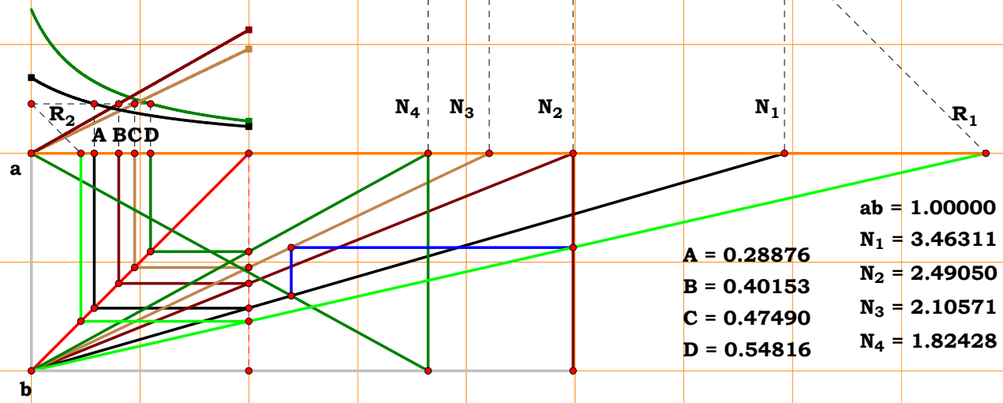
$$R_1 - \frac{(A+D)}{(B \cdot C)} = 0.00000$$

$$\frac{(A+D)}{(B \cdot C)} - \frac{N_1 \cdot N_2 \cdot N_3 + N_2 \cdot N_3 \cdot N_4}{N_1 \cdot N_4} = 0.00000$$

$R_2 = 0.22784$

$$\frac{(B \cdot C)}{(A+D)} = 0.22784$$

$$R_2 - \frac{(B \cdot C)}{(A+D)} = 0.00000$$



A = 0.28876
B = 0.40153
C = 0.47490
D = 0.54816

ab = 1.00000
N_1 = 3.46311
N_2 = 2.49050
N_3 = 2.10571
N_4 = 1.82428

R_1 = 4.38903

$$\frac{N_1 \cdot N_2 \cdot N_3 + N_2 \cdot N_3 \cdot N_4}{N_1 \cdot N_4} = 4.38903$$

$$\frac{(A+D)}{(B \cdot C)} = 4.38903$$

$$R_1 - \frac{N_1 \cdot N_2 \cdot N_3 + N_2 \cdot N_3 \cdot N_4}{N_1 \cdot N_4} = 0.00000$$

$$R_1 - \frac{(A+D)}{(B \cdot C)} = 0.00000$$

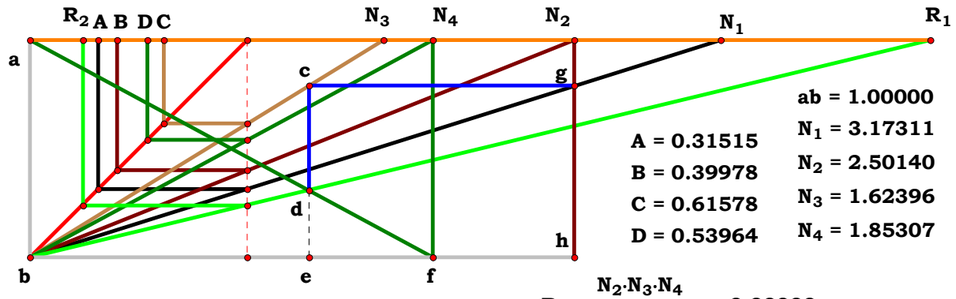
$$\frac{(A+D)}{(B \cdot C)} - \frac{N_1 \cdot N_2 \cdot N_3 + N_2 \cdot N_3 \cdot N_4}{N_1 \cdot N_4} = 0.00000$$

R_2 = 0.22784

$$\frac{(B \cdot C)}{(A+D)} = 0.22784$$

$$R_2 - \frac{(B \cdot C)}{(A+D)} = 0.00000$$

1CST6R4



ab = 1.00000
N1 = 3.17311
N2 = 2.50140
N3 = 1.62396
N4 = 1.85307

A = 0.31515
B = 0.39978
C = 0.61578
D = 0.53964

$R_1 = 4.14099$

$\frac{N_2 \cdot N_3 \cdot N_4}{N_1 \cdot N_4 - N_2 \cdot N_3} = 4.14099$

$\frac{A}{(B \cdot C - A \cdot D)} = 4.14099$

Given.

Unit. $AB := 1$ $N_1 := 3.17311$

$N_2 := 2.50140$ $N_3 := 1.62396$ $N_4 := 1.85307$

$A := \frac{1}{N_1}$ $B := \frac{1}{N_2}$ $C := \frac{1}{N_3}$ $D := \frac{1}{N_4}$

Descriptions.

$GH := \frac{N_2}{N_1}$ $BE := N_3 \cdot GH$

$DE := \frac{N_4 - BE}{N_4}$ $R_1 := \frac{BE}{DE}$

$R_1 = 4.140941$ $R_2 := \frac{1}{R_1}$

Definitions.

$R_1 - \frac{N_2 \cdot N_3 \cdot N_4}{N_1 \cdot N_4 - N_2 \cdot N_3} = 0$

$N_1 - \frac{1}{A} = 0$ $N_2 - \frac{1}{B} = 0$

$N_3 - \frac{1}{C} = 0$ $N_4 - \frac{1}{D} = 0$

$R_1 - \frac{A}{B \cdot C - A \cdot D} = 0$ $R_2 - \frac{B \cdot C - A \cdot D}{A} = 0$

$R_1 - \frac{N_2 \cdot N_3 \cdot N_4}{N_1 \cdot N_4 - N_2 \cdot N_3} = 0.00000$

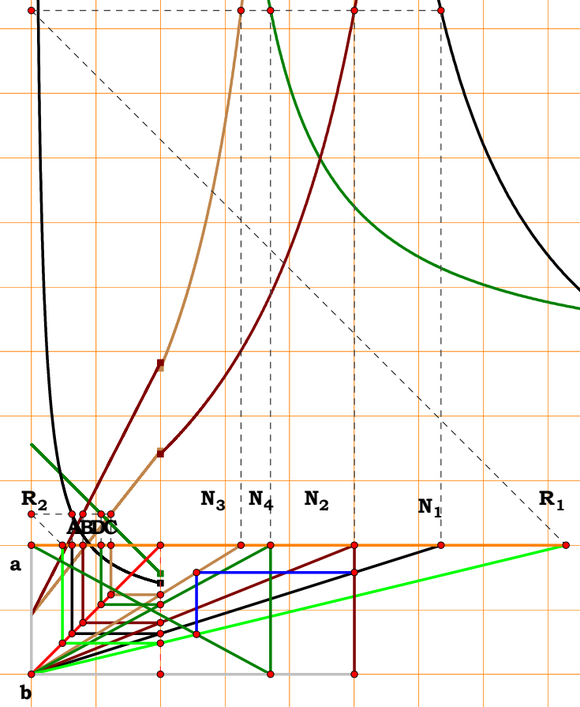
$R_1 - \frac{A}{(B \cdot C - A \cdot D)} = 0.00000$

$\frac{A}{(B \cdot C - A \cdot D)} - \frac{N_2 \cdot N_3 \cdot N_4}{N_1 \cdot N_4 - N_2 \cdot N_3} = 0.00000$

$R_2 = 0.24149$

$\frac{(B \cdot C - A \cdot D)}{A} = 0.24149$

$R_2 - \frac{(B \cdot C - A \cdot D)}{A} = 0.00000$



A = 0.31515
B = 0.39978
C = 0.61578
D = 0.53964

ab = 1.00000
N_1 = 3.17311
N_2 = 2.50140
N_3 = 1.62396
N_4 = 1.85307

R_1 = 4.14099

$$\frac{N_2 \cdot N_3 \cdot N_4}{N_1 \cdot N_4 - N_2 \cdot N_3} = 4.14099$$

$$\frac{A}{(B \cdot C - A \cdot D)} = 4.14099$$

$$R_1 - \frac{N_2 \cdot N_3 \cdot N_4}{N_1 \cdot N_4 - N_2 \cdot N_3} = 0.00000$$

$$R_1 - \frac{A}{(B \cdot C - A \cdot D)} = 0.00000$$

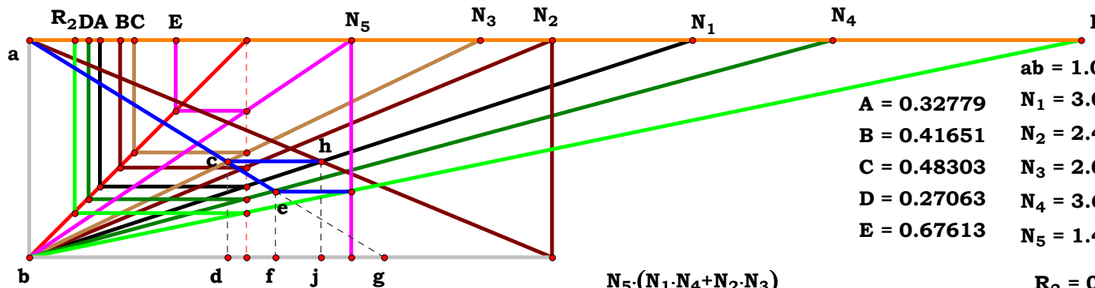
$$\frac{A}{(B \cdot C - A \cdot D)} - \frac{N_2 \cdot N_3 \cdot N_4}{N_1 \cdot N_4 - N_2 \cdot N_3} = 0.00000$$

R_2 = 0.24149

$$\frac{(B \cdot C - A \cdot D)}{A} = 0.24149$$

$$R_2 - \frac{(B \cdot C - A \cdot D)}{A} = 0.00000$$

1CST6R5



A = 0.32779
B = 0.41651
C = 0.48303
D = 0.27063
E = 0.67613

ab = 1.00000
N_1 = 3.05078
N_2 = 2.40088
N_3 = 2.07026
N_4 = 3.69504
N_5 = 1.47901

$R_1 = 4.83333$

$\frac{N_5\cdot(N_1\cdot N_4+N_2\cdot N_3)}{N_2\cdot N_3} = 4.83333$

$\frac{(A\cdot D+B\cdot C)}{(A\cdot D\cdot E)} = 4.83333$

$R_1-\frac{N_5\cdot(N_1\cdot N_4+N_2\cdot N_3)}{N_2\cdot N_3} = 0.00000$

$R_1-\frac{(A\cdot D+B\cdot C)}{(A\cdot D\cdot E)} = 0.00000$

$\frac{(A\cdot D+B\cdot C)}{(A\cdot D\cdot E)}-\frac{N_5\cdot(N_1\cdot N_4+N_2\cdot N_3)}{N_2\cdot N_3} = 0.00000$

$R_2 = 0.20690$

$\frac{(A\cdot D\cdot E)}{(A\cdot D+B\cdot C)} = 0.20690$

$R_2-\frac{(A\cdot D\cdot E)}{(A\cdot D+B\cdot C)} = 0.00000$

Given.

Unit. $ab := 1$ $N_1 := 3.05078$

$N_2 := 2.40088$ $N_3 := 2.07026$

$N_4 := 3.69504$ $N_5 := 1.47901$

$$A := \frac{1}{N_1} \quad B := \frac{1}{N_2} \quad C := \frac{1}{N_3} \quad D := \frac{1}{N_4} \quad E := \frac{1}{N_5}$$

Descriptions.

$$hj := \frac{N_2}{N_1 + N_2} \qquad bd := N_3 \cdot hj \qquad bg := \frac{bd}{1 - hj}$$

$$ef := \frac{bg}{bg + N_4} \qquad R_1 := \frac{N_5}{ef}$$

$R_1 = 4.83334$ $\qquad R_2 := \frac{1}{R_1}$

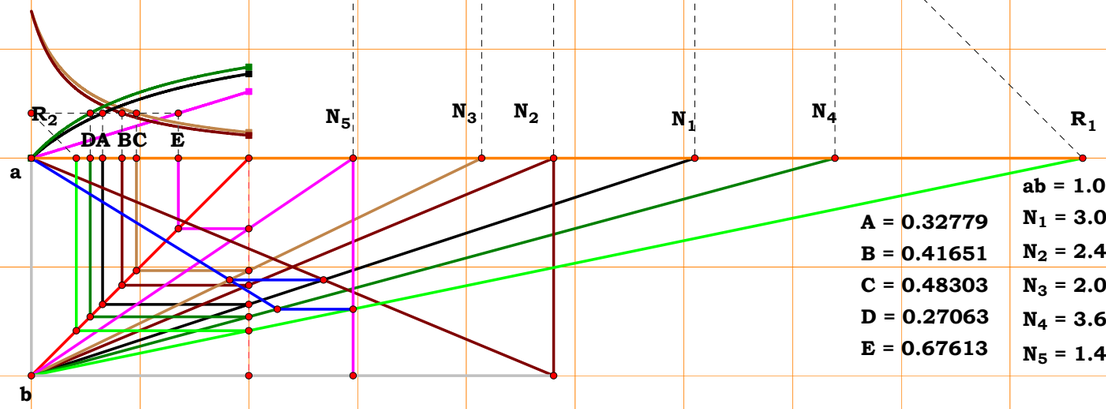
Definitions.

$$R_1 - \frac{N_5 \cdot (N_1 \cdot N_4 + N_2 \cdot N_3)}{N_2 \cdot N_3} = 0$$

$$N_1 - \frac{1}{A} = 0 \qquad N_2 - \frac{1}{B} = 0$$

$$N_3 - \frac{1}{C} = 0 \qquad N_4 - \frac{1}{D} = 0 \qquad N_5 - \frac{1}{E} = 0$$

$$R_1 - \frac{(A \cdot D + B \cdot C)}{A \cdot E \cdot D} = 0 \qquad R_2 - \frac{A \cdot E \cdot D}{(A \cdot D + B \cdot C)} = 0$$



A = 0.32779
B = 0.41651
C = 0.48303
D = 0.27063
E = 0.67613

ab = 1.00000
N_1 = 3.05078
N_2 = 2.40088
N_3 = 2.07026
N_4 = 3.69504
N_5 = 1.47901

$R_1 = 4.83333$

$$\frac{N_5\cdot(N_1\cdot N_4+N_2\cdot N_3)}{N_2\cdot N_3} = 4.83333$$

$$\frac{(A\cdot D+B\cdot C)}{(A\cdot D\cdot E)} = 4.83333$$

$$R_1-\frac{N_5\cdot(N_1\cdot N_4+N_2\cdot N_3)}{N_2\cdot N_3} = 0.00000$$

$$R_1-\frac{(A\cdot D+B\cdot C)}{(A\cdot D\cdot E)} = 0.00000$$

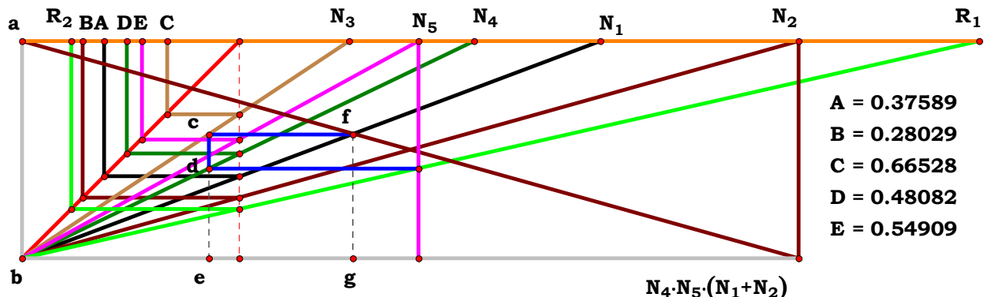
$$\frac{(A\cdot D+B\cdot C)}{(A\cdot D\cdot E)}-\frac{N_5\cdot(N_1\cdot N_4+N_2\cdot N_3)}{N_2\cdot N_3} = 0.00000$$

$R_2 = 0.20690$

$$\frac{(A\cdot D\cdot E)}{(A\cdot D+B\cdot C)} = 0.20690$$

$$R_2-\frac{(A\cdot D\cdot E)}{(A\cdot D+B\cdot C)} = 0.00000$$

1CST6R6



A = 0.37589
B = 0.28029
C = 0.66528
D = 0.48082
E = 0.54909

ab = 1.00000
N_1 = 2.66038
N_2 = 3.56774
N_3 = 1.50313
N_4 = 2.07979
N_5 = 1.82120

R_1 = 4.39891

$\frac{N_4 \cdot N_5 \cdot (N_1 + N_2)}{N_2 \cdot N_3}$ = 4.39891

$\frac{(C \cdot (A+B))}{(A \cdot D \cdot E)}$ = 4.39891

Given.

Unit. ab := 1 $N_1 := 2.66038$

$N_2 := 3.56774$ $N_3 := 1.50313$

$N_4 := 2.07979$ $N_5 := 1.82120$

$A := \frac{1}{N_1}$ $B := \frac{1}{N_2}$ $C := \frac{1}{N_3}$ $D := \frac{1}{N_4}$ $E := \frac{1}{N_5}$

Descriptions.

$fg := \frac{N_2}{N_1 + N_2}$ $be := N_3 \cdot fg$

$de := \frac{be}{N_4}$ $R_1 := \frac{N_5}{de}$

$R_1 = 4.398903$

Definitions.

$R_1 - \frac{N_4 \cdot N_5 \cdot (N_1 + N_2)}{N_2 \cdot N_3} = 0$

$N_1 - \frac{1}{A} = 0$ $N_2 - \frac{1}{B} = 0$

$N_3 - \frac{1}{C} = 0$ $N_4 - \frac{1}{D} = 0$ $N_5 - \frac{1}{E} = 0$

$R_1 - \frac{C \cdot (A+B)}{A \cdot D \cdot E} = 0$

$R_1 - \frac{N_4 \cdot N_5 \cdot (N_1 + N_2)}{N_2 \cdot N_3} = 0.00000$

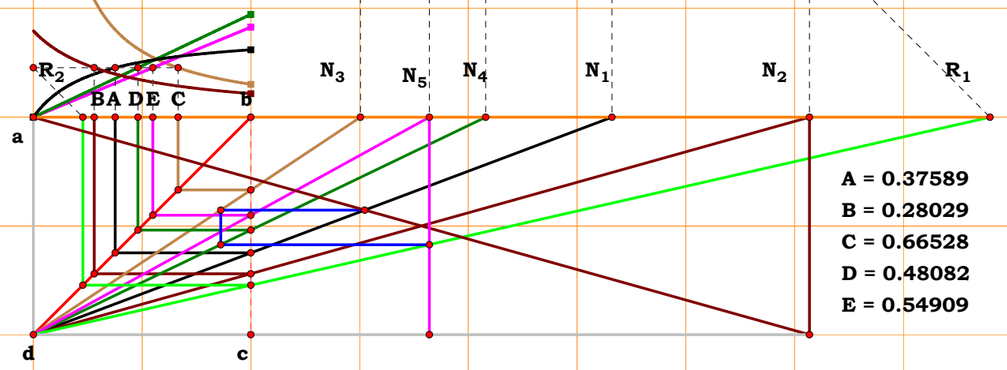
$R_1 - \frac{(C \cdot (A+B))}{(A \cdot D \cdot E)} = 0.00000$

$\frac{(C \cdot (A+B))}{(A \cdot D \cdot E)} - \frac{N_4 \cdot N_5 \cdot (N_1 + N_2)}{N_2 \cdot N_3} = 0.00000$

R_2 = 0.22733

$\frac{(A \cdot D \cdot E)}{(C \cdot (A+B))}$ = 0.22733

$R_2 - \frac{(A \cdot D \cdot E)}{(C \cdot (A+B))}$ = 0.00000



A = 0.37589
B = 0.28029
C = 0.66528
D = 0.48082
E = 0.54909

ab = 1.00000
N_1 = 2.66038
N_2 = 3.56774
N_3 = 1.50313
N_4 = 2.07979
N_5 = 1.82120

$R_1 = 4.39891$

$$\frac{N_4 \cdot N_5 \cdot (N_1+N_2)}{N_2 \cdot N_3} = 4.39891$$

$$\frac{(C \cdot (A+B))}{(A \cdot D \cdot E)} = 4.39891$$

$$R_1 - \frac{N_4 \cdot N_5 \cdot (N_1+N_2)}{N_2 \cdot N_3} = 0.00000$$

$$R_1 - \frac{(C \cdot (A+B))}{(A \cdot D \cdot E)} = 0.00000$$

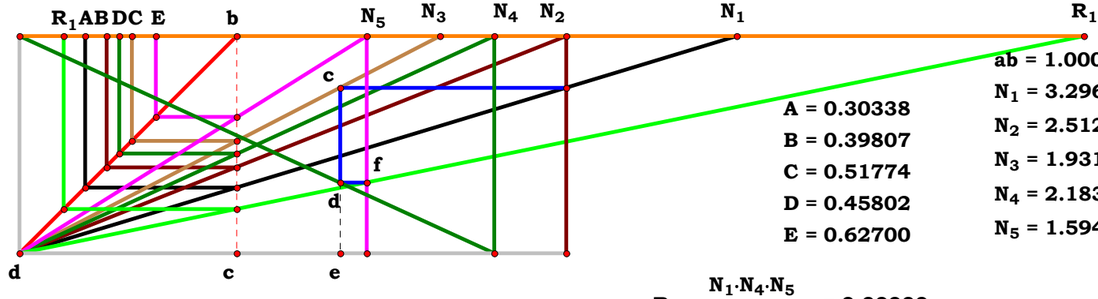
$$\frac{(C \cdot (A+B))}{(A \cdot D \cdot E)} - \frac{N_4 \cdot N_5 \cdot (N_1+N_2)}{N_2 \cdot N_3} = 0.00000$$

$R_2 = 0.22733$

$$\frac{(A \cdot D \cdot E)}{(C \cdot (A+B))} = 0.22733$$

$$R_2 - \frac{(A \cdot D \cdot E)}{(C \cdot (A+B))} = 0.00000$$

1CST6R7



Given.

Unit. $ab := 1$ $N_1 := 3.29615$

$N_2 := 2.51211$ $N_3 := 1.93148$

$N_4 := 2.18330$ $N_5 := 1.59491$

$$A := \frac{1}{N_1} \quad B := \frac{1}{N_2} \quad C := \frac{1}{N_3} \quad D := \frac{1}{N_4} \quad E := \frac{1}{N_5}$$

Descriptions.

$$ce := \frac{N_2}{N_1} \qquad be := ce \cdot N_3$$

$$de := 1 - \frac{be}{N_4} \qquad R_1 := \frac{N_5}{de}$$

$R_1 = 4.895826$

Definitions.

$$R_1 - \frac{N_1 \cdot N_4 \cdot N_5}{N_1 \cdot N_4 - N_2 \cdot N_3} = 0$$

$$N_1 - \frac{1}{A} = 0 \qquad N_2 - \frac{1}{B} = 0$$

$$N_3 - \frac{1}{C} = 0 \qquad N_4 - \frac{1}{D} = 0 \qquad N_5 - \frac{1}{E} = 0$$

$$R_1 - \frac{B \cdot C}{E \cdot (B \cdot C - A \cdot D)} = 0$$

$A = 0.30338$
$B = 0.39807$
$C = 0.51774$
$D = 0.45802$
$E = 0.62700$

$ab = 1.00000$
$N_1 = 3.29615$
$N_2 = 2.51211$
$N_3 = 1.93148$
$N_4 = 2.18330$
$N_5 = 1.59491$

$R_1 = 4.89578$

$$\frac{N_1 \cdot N_4 \cdot N_5}{N_1 \cdot N_4 - N_2 \cdot N_3} = 4.89578$$

$$\frac{(B \cdot C)}{(E \cdot (B \cdot C - A \cdot D))} = 4.89578$$

$$R_1 - \frac{N_1 \cdot N_4 \cdot N_5}{N_1 \cdot N_4 - N_2 \cdot N_3} = 0.00000$$

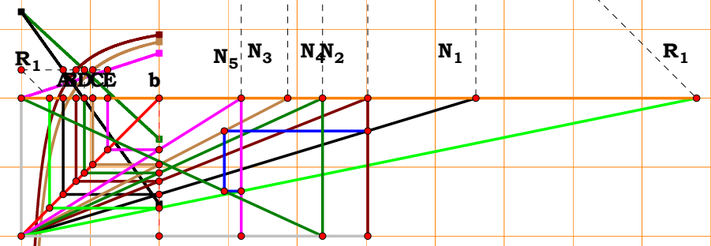
$$R_1 - \frac{(B \cdot C)}{(E \cdot (B \cdot C - A \cdot D))} = 0.00000$$

$$\frac{(B \cdot C)}{(E \cdot (B \cdot C - A \cdot D))} - \frac{N_1 \cdot N_4 \cdot N_5}{N_1 \cdot N_4 - N_2 \cdot N_3} = 0.00000$$

$R_2 = 0.20426$

$$\frac{(E \cdot (B \cdot C - A \cdot D))}{(B \cdot C)} = 0.20426$$

$$R_2 - \frac{(E \cdot (B \cdot C - A \cdot D))}{(B \cdot C)} = 0.00000$$



A = 0.30338
B = 0.39807
C = 0.51774
D = 0.45802
E = 0.62700

ab = 1.00000
N_1 = 3.29615
N_2 = 2.51211
N_3 = 1.93148
N_4 = 2.18330
N_5 = 1.59491

$R_1 = 4.89578$

$$\frac{N_1 \cdot N_4 \cdot N_5}{N_1 \cdot N_4 - N_2 \cdot N_3} = 4.89578$$

$$\frac{(B \cdot C)}{(E \cdot (B \cdot C - A \cdot D))} = 4.89578$$

$$R_1 - \frac{N_1 \cdot N_4 \cdot N_5}{N_1 \cdot N_4 - N_2 \cdot N_3} = 0.00000$$

$$R_1 - \frac{(B \cdot C)}{(E \cdot (B \cdot C - A \cdot D))} = 0.00000$$

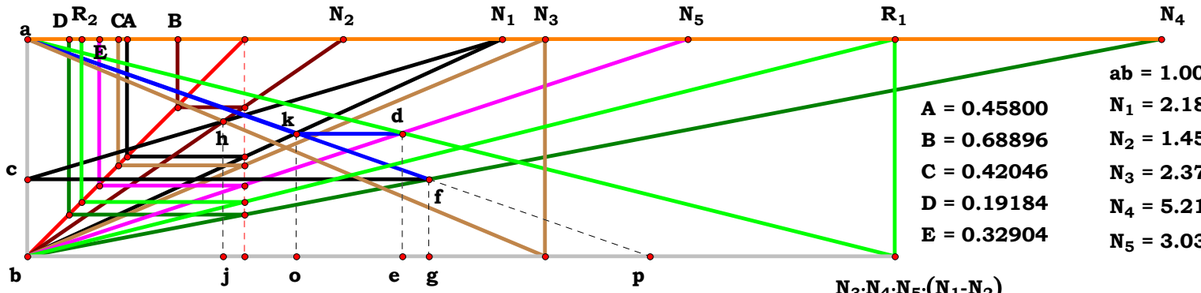
$$\frac{(B \cdot C)}{(E \cdot (B \cdot C - A \cdot D))} - \frac{N_1 \cdot N_4 \cdot N_5}{N_1 \cdot N_4 - N_2 \cdot N_3} = 0.00000$$

$R_2 = 0.20426$

$$\frac{(E \cdot (B \cdot C - A \cdot D))}{(B \cdot C)} = 0.20426$$

$$R_2 - \frac{(E \cdot (B \cdot C - A \cdot D))}{(B \cdot C)} = 0.00000$$

1CST7R0



ab = 1.00000
A = 0.45800
B = 0.68896
C = 0.42046
D = 0.19184
E = 0.32904
N1 = 2.18340
N2 = 1.45145
N3 = 2.37837
N4 = 5.21277
N5 = 3.03917

R1 = 3.98577

$\frac{N_3 \cdot N_4 \cdot N_5 \cdot (N_1 - N_2)}{N_1^2 \cdot N_2} = 3.98577$

$\frac{(A \cdot (B-A))}{(C \cdot D \cdot E)} = 3.98577$

$R_1 - \frac{N_3 \cdot N_4 \cdot N_5 \cdot (N_1 - N_2)}{N_1^2 \cdot N_2} = 0.00000$

$R_1 - \frac{(A \cdot (B-A))}{(C \cdot D \cdot E)} = 0.00000$

$\frac{(A \cdot (B-A))}{(C \cdot D \cdot E)} - \frac{N_3 \cdot N_4 \cdot N_5 \cdot (N_1 - N_2)}{N_1^2 \cdot N_2} = 0.00000$

R2 = 0.25089

$\frac{(C \cdot D \cdot E)}{(A \cdot (B-A))} = 0.25089$

$R_2 - \frac{(C \cdot D \cdot E)}{(A \cdot (B-A))} = 0.00000$

Given.

Unit. $ab := 1$ $N_1 := 2.18340$

$N_2 := 1.45145$ $N_3 := 2.37837$

$N_4 := 5.21277$ $N_5 := 3.03917$

$A := \frac{1}{N_1}$ $B := \frac{1}{N_2}$ $C := \frac{1}{N_3}$ $D := \frac{1}{N_4}$ $E := \frac{1}{N_5}$

Descriptions.

$hj := \frac{N_3}{N_2 + N_3}$ $bj := \frac{N_2 \cdot N_3}{N_2 + N_3}$ $ac := \frac{(1 - hj) \cdot N_1}{N_1 - bj}$

$bg := N_4 \cdot (1 - ac)$ $bp := \frac{bg}{ac}$ $ko := \frac{bp}{bp + N_1}$

$be := N_5 \cdot ko$ $R_1 := \frac{be}{1 - ko}$ $R_1 = 3.985802$

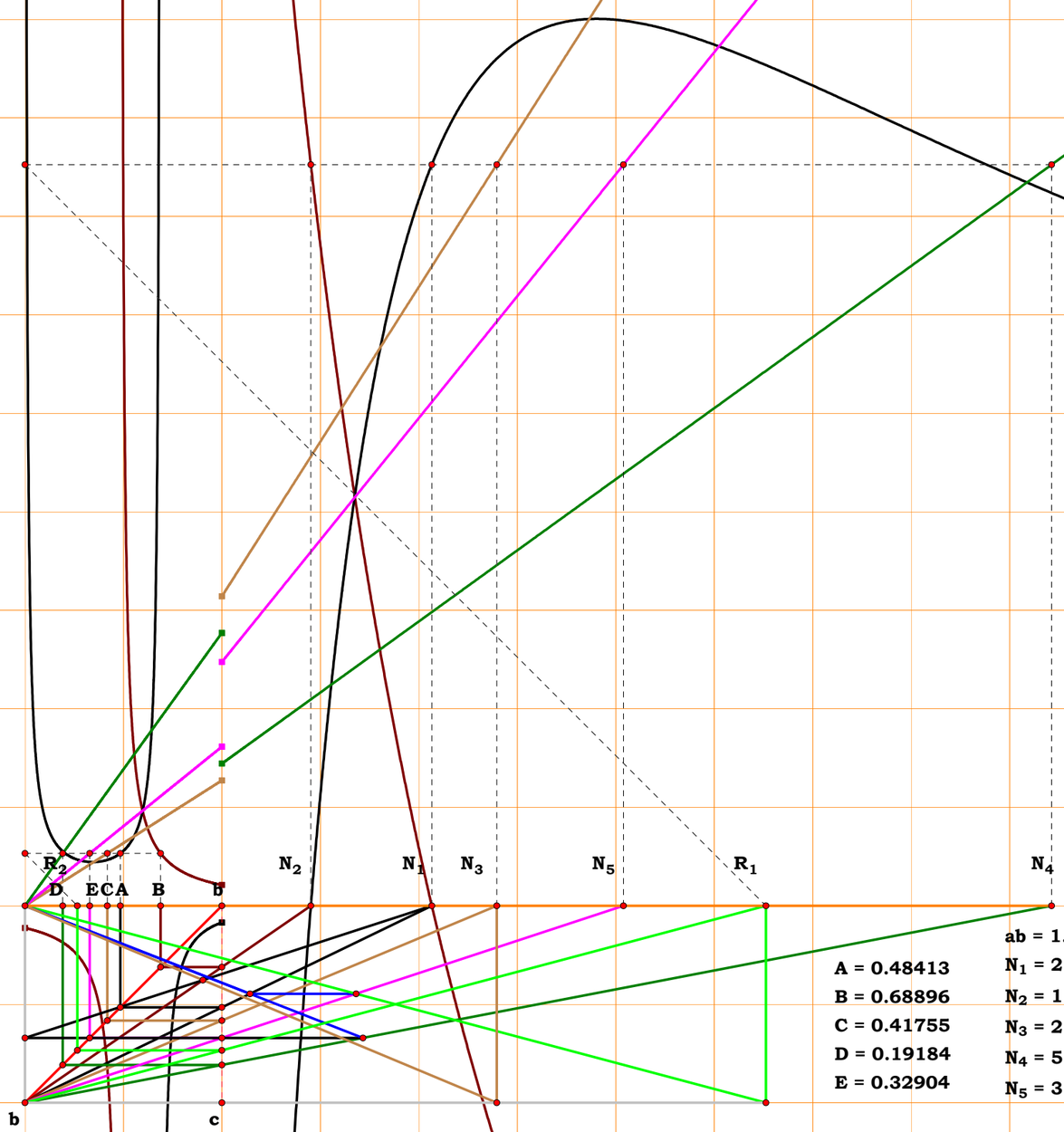
Definitions.

$R_1 - \frac{N_3 \cdot N_4 \cdot N_5 \cdot (N_1 - N_2)}{N_1^2 \cdot N_2} = 0$

$N_1 - \frac{1}{A} = 0$ $N_2 - \frac{1}{B} = 0$ $N_3 - \frac{1}{C} = 0$

$N_4 - \frac{1}{D} = 0$ $N_5 - \frac{1}{E} = 0$

$R_1 - \frac{A \cdot (B - A)}{C \cdot D \cdot E} = 0$



$A = 0.48413$
$B = 0.68896$
$C = 0.41755$
$D = 0.19184$
$E = 0.32904$

$ab = 1.00000$
$N_1 = 2.06558$
$N_2 = 1.45145$
$N_3 = 2.39491$
$N_4 = 5.21277$
$N_5 = 3.03917$

$R_1 = 3.76253$

$$\frac{N_3 \cdot N_4 \cdot N_5 \cdot (N_1 - N_2)}{N_1^2 \cdot N_2} = 3.76253$$

$$\frac{(A \cdot (B-A))}{(C \cdot D \cdot E)} = 3.76253$$

$$R_1 - \frac{N_3 \cdot N_4 \cdot N_5 \cdot (N_1 - N_2)}{N_1^2 \cdot N_2} = 0.00000$$

$$R_1 - \frac{(A \cdot (B-A))}{(C \cdot D \cdot E)} = 0.00000$$

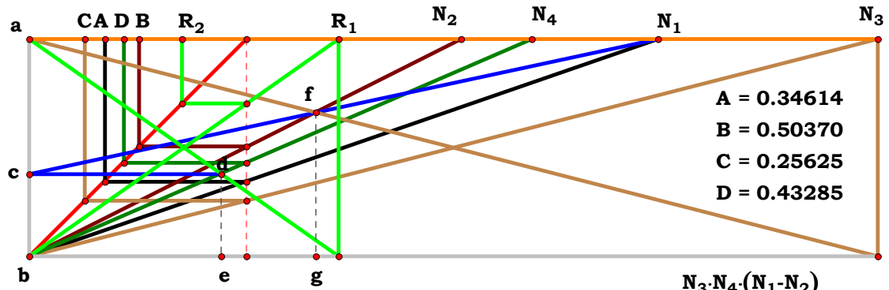
$$\frac{(A \cdot (B-A))}{(C \cdot D \cdot E)} - \frac{N_3 \cdot N_4 \cdot N_5 \cdot (N_1 - N_2)}{N_1^2 \cdot N_2} = 0.00000$$

$R_2 = 0.26578$

$$\frac{(C \cdot D \cdot E)}{(A \cdot (B-A))} = 0.26578$$

$$R_2 - \frac{(C \cdot D \cdot E)}{(A \cdot (B-A))} = 0.00000$$

1CST7R1



ab = 1.00000
N_1 = 2.88899
N_2 = 1.98532
N_3 = 3.90241
N_4 = 2.31026

$R_1 = 1.42047$

$\frac{N_3 \cdot N_4 \cdot (N_1 - N_2)}{N_1 \cdot N_2} = 1.42047$

$\frac{(B-A)}{(C \cdot D)} = 1.42047$

$R_1 - \frac{N_3 \cdot N_4 \cdot (N_1 - N_2)}{N_1 \cdot N_2} = 0.00000$

$R_1 - \frac{(B-A)}{(C \cdot D)} = 0.00000$

$\frac{(B-A)}{(C \cdot D)} - \frac{N_3 \cdot N_4 \cdot (N_1 - N_2)}{N_1 \cdot N_2} = 0.00000$

$R_2 = 0.70399$

$\frac{(C \cdot D)}{(B-A)} = 0.70399$

$R_2 - \frac{(C \cdot D)}{(B-A)} = 0.00000$

Given.

Unit. $ab := 1$ $N_1 := 2.88899$

$N_2 := 1.98532$ $N_3 := 3.90241$ $N_4 := 2.31026$

$A := \frac{1}{N_1}$ $B := \frac{1}{N_2}$ $C := \frac{1}{N_3}$ $D := \frac{1}{N_4}$

Descriptions.

$fg := \frac{N_3}{N_2 + N_3}$ $bg := \frac{N_2 \cdot N_3}{N_2 + N_3}$

$ac := \frac{N_1 \cdot (1 - fg)}{N_1 - bg}$ $de := 1 - ac$

$be := N_4 \cdot de$ $R_1 := \frac{be}{ac}$

$R_1 = 1.420454$

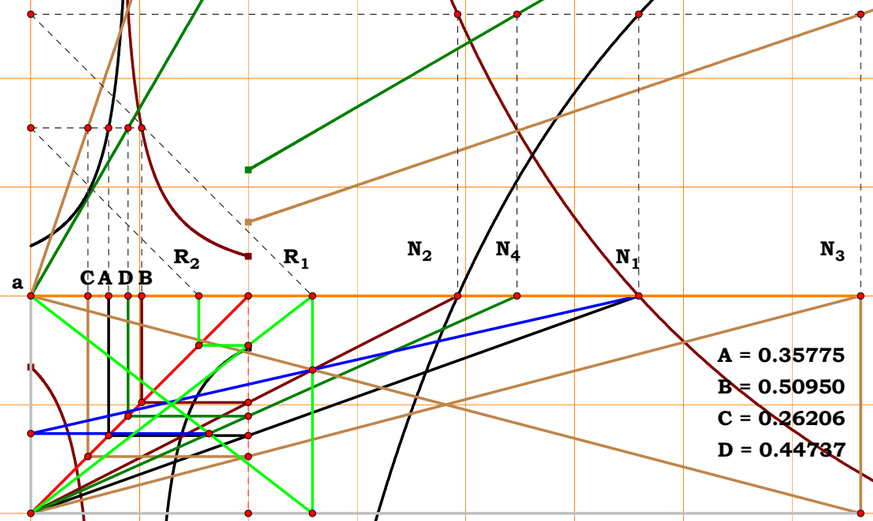
Definitions.

$R_1 - \frac{N_3 \cdot N_4 \cdot (N_1 - N_2)}{N_1 \cdot N_2} = 0$

$N_1 - \frac{1}{A} = 0$ $N_2 - \frac{1}{B} = 0$

$N_3 - \frac{1}{C} = 0$ $N_4 - \frac{1}{D} = 0$

$R_1 - \frac{(B - A)}{C \cdot D} = 0$



A = 0.35775
B = 0.50950
C = 0.26206
D = 0.44737

ab = 1.00000
N_1 = 2.79523
N_2 = 1.96269
N_3 = 3.81596
N_4 = 2.23530

R_1 = 1.29441

$$\frac{N_3 \cdot N_4 \cdot (N_1 - N_2)}{N_1 \cdot N_2} = 1.29441$$

$$\frac{(B-A)}{(C \cdot D)} = 1.29441$$

$$R_1 - \frac{N_3 \cdot N_4 \cdot (N_1 - N_2)}{N_1 \cdot N_2} = 0.00000$$

$$R_1 - \frac{(B-A)}{(C \cdot D)} = 0.00000$$

$$\frac{(B-A)}{(C \cdot D)} - \frac{N_3 \cdot N_4 \cdot (N_1 - N_2)}{N_1 \cdot N_2} = 0.00000$$

R_2 = 0.77255

$$\frac{(C \cdot D)}{(B-A)} = 0.77255$$

$$R_2 - \frac{(C \cdot D)}{(B-A)} = 0.00000$$

1CST7R2

Given.

Unit. $ab := 1 \quad N_1 := 2.18839$

$N_2 := 1.82738 \quad N_3 := 2.55787 \quad N_4 := 3.70379$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2} \quad C := \frac{1}{N_3} \quad D := \frac{1}{N_4}$

Descriptions.

$ef := \frac{N_3}{N_2 + N_3} \quad bf := N_2 \cdot ef$

$ac := \frac{N_1 \cdot (1 - ef)}{N_1 - bf} \quad R_1 := N_4 \cdot ac$

$R_1 = 3.008983$

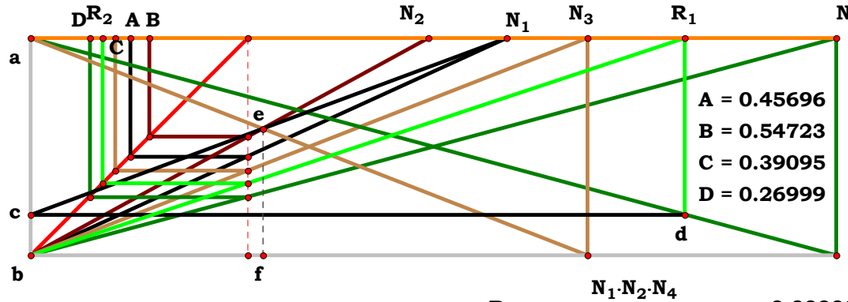
Definitions.

$R_1 - \frac{N_1 \cdot N_2 \cdot N_4}{N_1 \cdot N_2 + N_1 \cdot N_3 - N_2 \cdot N_3} = 0$

$N_1 - \frac{1}{A} = 0 \quad N_2 - \frac{1}{B} = 0$

$N_3 - \frac{1}{C} = 0 \quad N_4 - \frac{1}{D} = 0$

$R_1 - \frac{C}{D \cdot (B - A + C)} = 0$



$ab = 1.00000$
$N_1 = 2.18839$
$N_2 = 1.82738$
$N_3 = 2.55787$
$N_4 = 3.70379$

$R_1 - \frac{N_1 \cdot N_2 \cdot N_4}{(N_1 \cdot N_2 + N_1 \cdot N_3) - N_2 \cdot N_3} = 0.00000$

$R_1 - \frac{C}{(D \cdot ((B - A) + C))} = 0.00000$

$\frac{C}{(D \cdot ((B - A) + C))} - \frac{N_1 \cdot N_2 \cdot N_4}{(N_1 \cdot N_2 + N_1 \cdot N_3) - N_2 \cdot N_3} = 0.00000$

$R_1 = 3.00899$

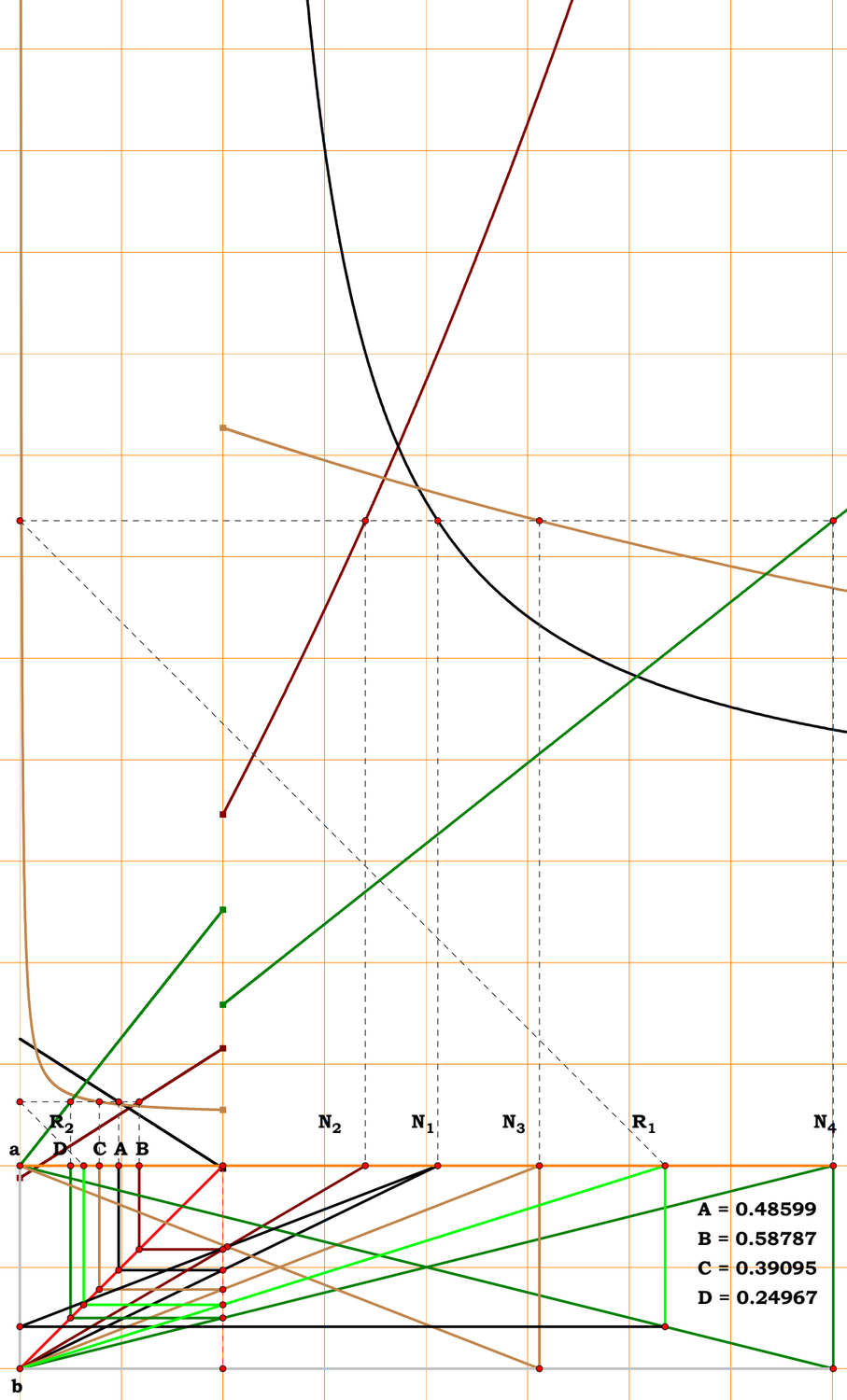
$\frac{N_1 \cdot N_2 \cdot N_4}{(N_1 \cdot N_2 + N_1 \cdot N_3) - N_2 \cdot N_3} = 3.00899$

$\frac{C}{(D \cdot ((B - A) + C))} = 3.00899$

$R_2 = 0.33234$

$\frac{(D \cdot ((B - A) + C))}{C} = 0.33234$

$R_2 - \frac{(D \cdot ((B - A) + C))}{C} = 0.00000$



$ab = 1.00000$

$N_1 = 2.05767$

$N_2 = 1.70106$

$N_3 = 2.55787$

$N_4 = 4.00522$

$R_1 = 3.17722$

$$\frac{N_1 \cdot N_2 \cdot N_4}{(N_1 \cdot N_2 + N_1 \cdot N_3) - N_2 \cdot N_3} = 3.17722$$

$$\frac{C}{(D \cdot ((B-A)+C))} = 3.17722$$

$$R_1 - \frac{N_1 \cdot N_2 \cdot N_4}{(N_1 \cdot N_2 + N_1 \cdot N_3) - N_2 \cdot N_3} = 0.00000$$

$$R_1 - \frac{C}{(D \cdot ((B-A)+C))} = 0.00000$$

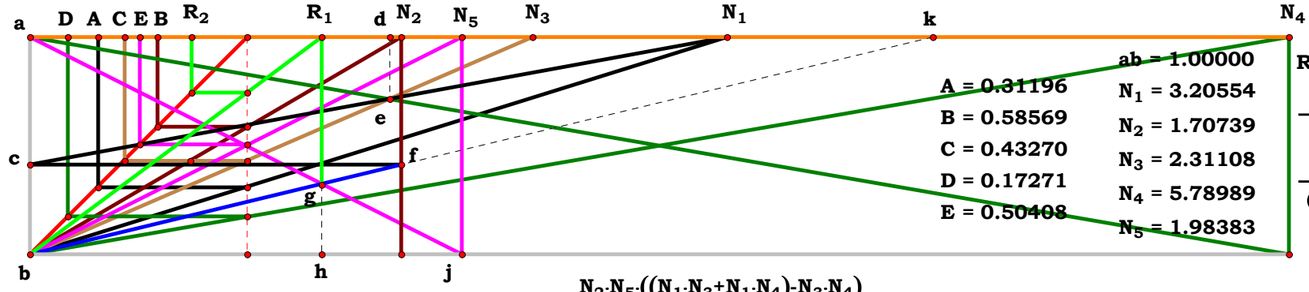
$$\frac{C}{(D \cdot ((B-A)+C))} - \frac{N_1 \cdot N_2 \cdot N_4}{(N_1 \cdot N_2 + N_1 \cdot N_3) - N_2 \cdot N_3} = 0.00000$$

$R_2 = 0.31474$

$$\frac{(D \cdot ((B-A)+C))}{C} = 0.31474$$

$$R_2 - \frac{(D \cdot ((B-A)+C))}{C} = 0.00000$$

1CST7R3



A = 0.31196
B = 0.58569
C = 0.43270
D = 0.17271
E = 0.50408

ab = 1.00000
N1 = 3.20554
N2 = 1.70739
N3 = 2.31108
N4 = 5.78989
N5 = 1.98383

$R_1 = 1.34219$

$$\frac{N_2 \cdot N_5 \cdot ((N_1 \cdot N_3 + N_1 \cdot N_4) - N_3 \cdot N_4)}{(N_1 \cdot N_2 \cdot (N_3 + N_4) - N_2 \cdot N_3 \cdot N_4) + N_4 \cdot N_5 \cdot (N_1 - N_3)} = 1.34219$$

$$\frac{((C-A)+D)}{((B \cdot C - A \cdot B - A \cdot E) + C \cdot E + D \cdot E)} = 1.34219$$

Given.

Unit. $ab := 1$ $N_1 := 3.20554$

$N_2 := 1.70739$ $N_3 := 2.31108$

$N_4 := 5.78989$ $N_5 := 1.98383$

$$A := \frac{1}{N_1} \quad B := \frac{1}{N_2} \quad C := \frac{1}{N_3} \quad D := \frac{1}{N_4} \quad E := \frac{1}{N_5}$$

Descriptions.

$$ad := \frac{N_3 \cdot N_4}{N_3 + N_4} \qquad de := \frac{ad}{N_4}$$

$$ac := \frac{de \cdot N_1}{N_1 - ad} \qquad ak := \frac{N_2}{1 - ac}$$

$$R_1 := \frac{ak \cdot N_5}{ak + N_5} \qquad R_1 = 1.34219$$

Definitions.

$$R_1 - \frac{N_2 \cdot N_5 \cdot (N_1 \cdot N_3 + N_1 \cdot N_4 - N_3 \cdot N_4)}{N_1 \cdot N_2 \cdot (N_3 + N_4) - N_2 \cdot N_3 \cdot N_4 + N_4 \cdot N_5 \cdot (N_1 - N_3)} = 0$$

$$N_1 - \frac{1}{A} = 0 \qquad N_2 - \frac{1}{B} = 0 \qquad N_3 - \frac{1}{C} = 0$$

$$N_4 - \frac{1}{D} = 0 \qquad N_5 - \frac{1}{E} = 0$$

$$R_1 - \frac{(C - A + D)}{B \cdot C - A \cdot B - A \cdot E + C \cdot E + D \cdot E} = 0$$

$$R_1 - \frac{N_2 \cdot N_5 \cdot ((N_1 \cdot N_3 + N_1 \cdot N_4) - N_3 \cdot N_4)}{(N_1 \cdot N_2 \cdot (N_3 + N_4) - N_2 \cdot N_3 \cdot N_4) + N_4 \cdot N_5 \cdot (N_1 - N_3)} = 0.00000$$

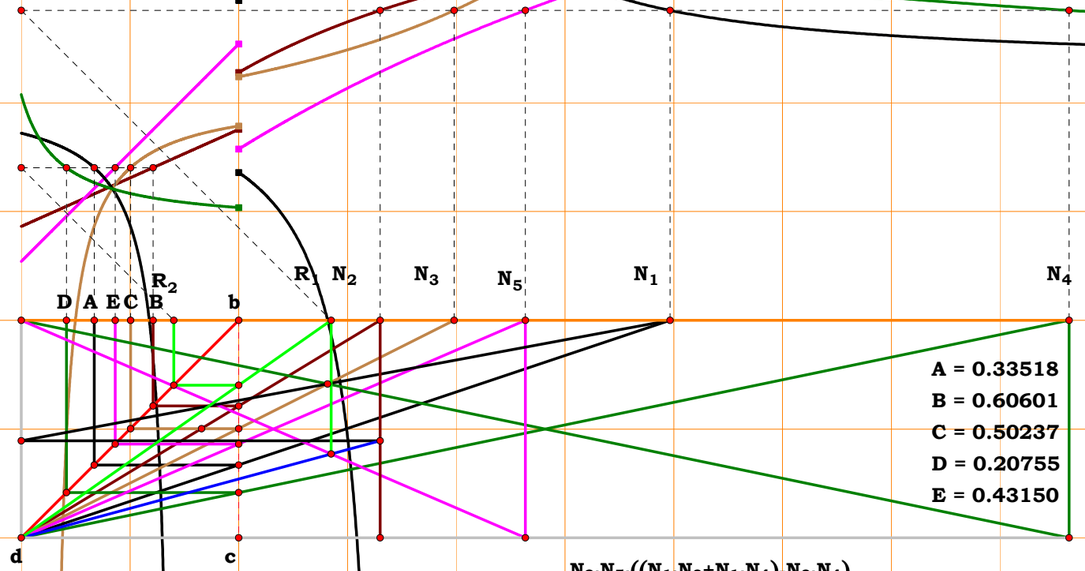
$$R_1 - \frac{((C-A)+D)}{((B \cdot C - A \cdot B - A \cdot E) + C \cdot E + D \cdot E)} = 0.00000$$

$$\frac{((C-A)+D)}{((B \cdot C - A \cdot B - A \cdot E) + C \cdot E + D \cdot E)} - \frac{N_2 \cdot N_5 \cdot ((N_1 \cdot N_3 + N_1 \cdot N_4) - N_3 \cdot N_4)}{(N_1 \cdot N_2 \cdot (N_3 + N_4) - N_2 \cdot N_3 \cdot N_4) + N_4 \cdot N_5 \cdot (N_1 - N_3)} = 0.00000$$

$R_2 = 0.74505$

$$\frac{((B \cdot C - A \cdot B - A \cdot E) + C \cdot E + D \cdot E)}{((C-A)+D)} = 0.74505$$

$$R_2 - \frac{((B \cdot C - A \cdot B - A \cdot E) + C \cdot E + D \cdot E)}{((C-A)+D)} = 0.00000$$



A = 0.33518
B = 0.60601
C = 0.50237
D = 0.20755
E = 0.43150

ab = 1.00000
N_1 = 2.98344
N_2 = 1.65014
N_3 = 1.99058
N_4 = 4.81813
N_5 = 2.31747

$$R_1 = 1.42476$$

$$\frac{N_2 \cdot N_5 \cdot ((N_1 \cdot N_3 + N_1 \cdot N_4) - N_3 \cdot N_4)}{(N_1 \cdot N_2 \cdot (N_3 + N_4) - N_2 \cdot N_3 \cdot N_4) + N_4 \cdot N_5 \cdot (N_1 - N_3)} = 1.42476$$

$$\frac{((C-A)+D)}{((B \cdot C - A \cdot B - A \cdot E) + C \cdot E + D \cdot E)} = 1.42476$$

$$R_1 - \frac{N_2 \cdot N_5 \cdot ((N_1 \cdot N_3 + N_1 \cdot N_4) - N_3 \cdot N_4)}{(N_1 \cdot N_2 \cdot (N_3 + N_4) - N_2 \cdot N_3 \cdot N_4) + N_4 \cdot N_5 \cdot (N_1 - N_3)} = 0.00000$$

$$R_1 - \frac{((C-A)+D)}{((B \cdot C - A \cdot B - A \cdot E) + C \cdot E + D \cdot E)} = 0.00000$$

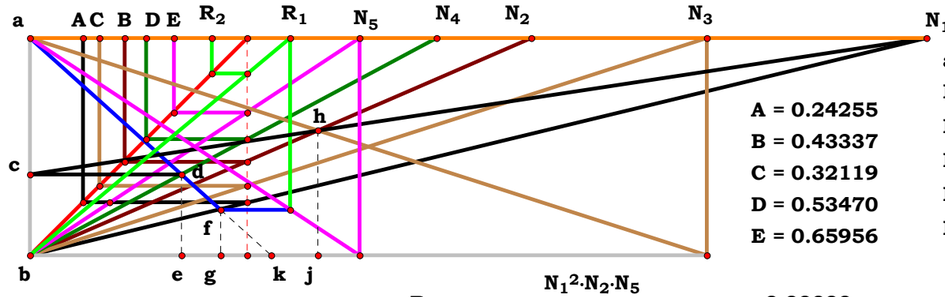
$$\frac{((C-A)+D)}{((B \cdot C - A \cdot B - A \cdot E) + C \cdot E + D \cdot E)} - \frac{N_2 \cdot N_5 \cdot ((N_1 \cdot N_3 + N_1 \cdot N_4) - N_3 \cdot N_4)}{(N_1 \cdot N_2 \cdot (N_3 + N_4) - N_2 \cdot N_3 \cdot N_4) + N_4 \cdot N_5 \cdot (N_1 - N_3)} = 0.00000$$

$$R_2 = 0.70187$$

$$\frac{((B \cdot C - A \cdot B - A \cdot E) + C \cdot E + D \cdot E)}{((C-A)+D)} = 0.70187$$

$$R_2 - \frac{((B \cdot C - A \cdot B - A \cdot E) + C \cdot E + D \cdot E)}{((C-A)+D)} = 0.00000$$

1CST7R4



ab = 1.00000

$N_1 = 4.12280$

$N_2 = 2.30749$

$N_3 = 3.11345$

$N_4 = 1.87019$

$N_5 = 1.51616$

A = 0.24255

B = 0.43337

C = 0.32119

D = 0.53470

E = 0.65956

$R_1 = 1.19429$

$\frac{N_1^2 \cdot N_2 \cdot N_5}{(N_1^2 \cdot N_2 + N_1 \cdot N_3 \cdot N_4) - N_2 \cdot N_3 \cdot N_4} = 1.19429$

$\frac{(C \cdot D)}{(E \cdot ((B \cdot A - A^2) + C \cdot D))} = 1.19429$

$R_1 - \frac{N_1^2 \cdot N_2 \cdot N_5}{(N_1^2 \cdot N_2 + N_1 \cdot N_3 \cdot N_4) - N_2 \cdot N_3 \cdot N_4} = 0.00000$

$R_1 - \frac{(C \cdot D)}{(E \cdot ((B \cdot A - A^2) + C \cdot D))} = 0.00000$

$\frac{(C \cdot D)}{(E \cdot ((B \cdot A - A^2) + C \cdot D))} - \frac{N_1^2 \cdot N_2 \cdot N_5}{(N_1^2 \cdot N_2 + N_1 \cdot N_3 \cdot N_4) - N_2 \cdot N_3 \cdot N_4} = 0.00000$

$R_2 = 0.83731$

$\frac{(E \cdot ((B \cdot A - A^2) + C \cdot D))}{(C \cdot D)} = 0.83731$

$R_2 - \frac{(E \cdot ((B \cdot A - A^2) + C \cdot D))}{(C \cdot D)} = 0.00000$

Given.

Unit. $ab := 1$ $N_1 := 4.12280$

$N_2 := 2.30749$ $N_3 := 3.11345$

$N_4 := 1.87019$ $N_5 := 1.51616$

$A := \frac{1}{N_1}$ $B := \frac{1}{N_2}$ $C := \frac{1}{N_3}$ $D := \frac{1}{N_4}$ $E := \frac{1}{N_5}$

Descriptions.

$hj := \frac{N_3}{N_2 + N_3}$ $bj := \frac{N_2 \cdot N_3}{N_2 + N_3}$

$ac := \frac{N_1 \cdot (1 - hj)}{N_1 - bj}$ $be := N_4 \cdot (1 - ac)$

$bk := \frac{be}{ac}$ $FG := \frac{bk}{bk + N_1}$

$R_1 := N_5 \cdot (1 - FG)$ $R_1 = 1.1943$

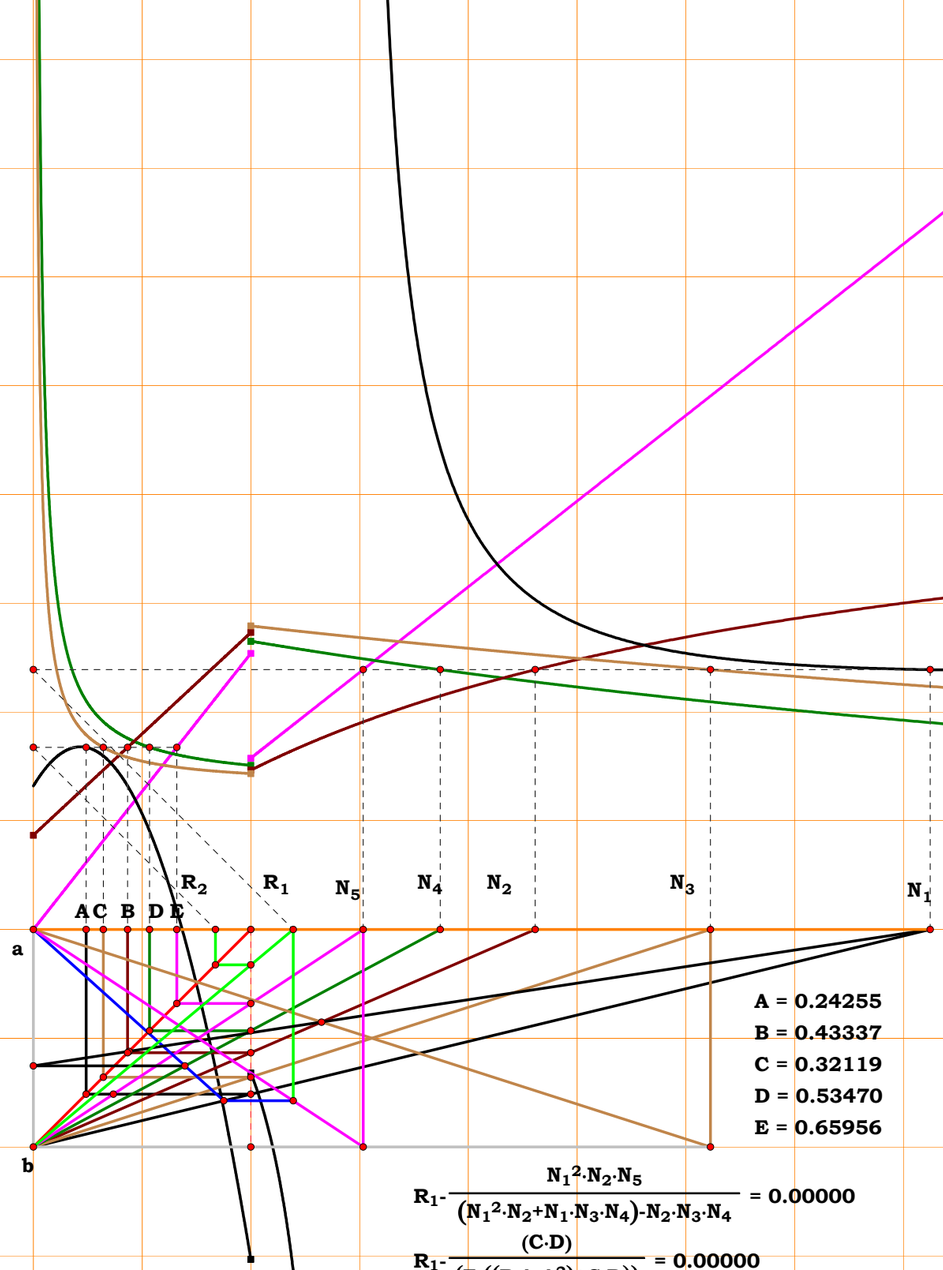
Definitions.

$R_1 - \frac{N_1^2 \cdot N_2 \cdot N_5}{N_1^2 \cdot N_2 + N_1 \cdot N_3 \cdot N_4 - N_2 \cdot N_3 \cdot N_4} = 0$

$N_1 - \frac{1}{A} = 0$ $N_2 - \frac{1}{B} = 0$ $N_3 - \frac{1}{C} = 0$

$N_4 - \frac{1}{D} = 0$ $N_5 - \frac{1}{E} = 0$

$R_1 - \frac{C \cdot D}{E \cdot (B \cdot A - A^2 + C \cdot D)} = 0$



A = 0.24255
B = 0.43337
C = 0.32119
D = 0.53470
E = 0.65956

ab = 1.00000
N_1 = 4.12280
N_2 = 2.30749
N_3 = 3.11345
N_4 = 1.87019
N_5 = 1.51616

R_1 = 1.19429

$$\frac{N_1^2 \cdot N_2 \cdot N_5}{(N_1^2 \cdot N_2 + N_1 \cdot N_3 \cdot N_4) - N_2 \cdot N_3 \cdot N_4} = 1.19429$$

$$\frac{(C \cdot D)}{(E \cdot ((B \cdot A - A^2) + C \cdot D))} = 1.19429$$

$$R_1 - \frac{N_1^2 \cdot N_2 \cdot N_5}{(N_1^2 \cdot N_2 + N_1 \cdot N_3 \cdot N_4) - N_2 \cdot N_3 \cdot N_4} = 0.00000$$

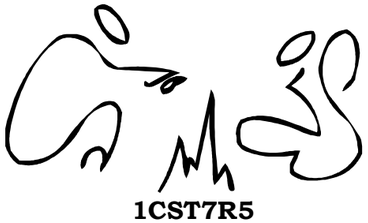
$$R_1 - \frac{(C \cdot D)}{(E \cdot ((B \cdot A - A^2) + C \cdot D))} = 0.00000$$

$$\frac{(C \cdot D)}{(E \cdot ((B \cdot A - A^2) + C \cdot D))} - \frac{N_1^2 \cdot N_2 \cdot N_5}{(N_1^2 \cdot N_2 + N_1 \cdot N_3 \cdot N_4) - N_2 \cdot N_3 \cdot N_4} = 0.00000$$

R_2 = 0.83731

$$\frac{(E \cdot ((B \cdot A - A^2) + C \cdot D))}{(C \cdot D)} = 0.83731$$

$$R_2 - \frac{(E \cdot ((B \cdot A - A^2) + C \cdot D))}{(C \cdot D)} = 0.00000$$



1CST7R5

Given.

Unit. $ab := 1$ $N_1 := 3.14079$

$N_2 := 3.73524$

$N_3 := 1.45348$ $N_4 := 1.91129$

$N_5 := 2.24401$ $N_6 := 1.66218$

$$A := \frac{1}{N_1} \quad B := \frac{1}{N_2} \quad C := \frac{1}{N_3} \quad D := \frac{1}{N_4} \quad E := \frac{1}{N_5} \quad F := \frac{1}{N_6}$$

Descriptions.

$$fg := \frac{N_2}{N_2 + N_3} \qquad bg := \frac{N_2 \cdot N_3}{N_2 + N_3} \qquad ac := \frac{N_1 \cdot (1 - fg)}{N_1 - bg}$$

$$be := N_4 \cdot (1 - ac) \qquad bk := \frac{be}{ac} \qquad hj := \frac{bk}{bk + N_1}$$

$$ao := \frac{N_5}{hj} \qquad R_1 := \frac{N_6 \cdot ao}{N_6 + ao} \qquad R_1 = 1.242115$$

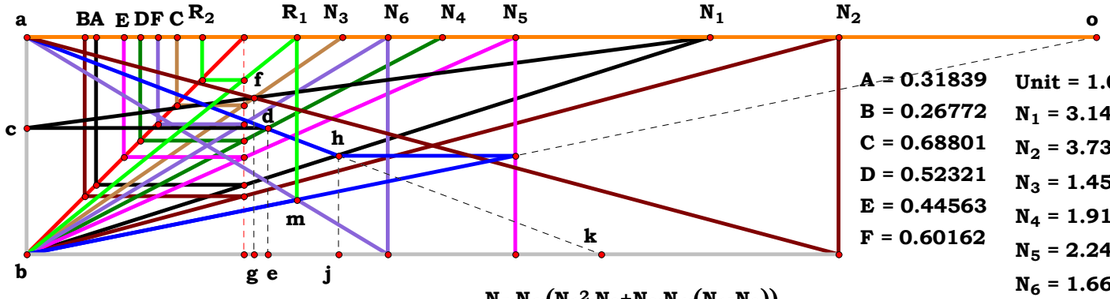
Definitions.

$$R_1 - \frac{N_5 \cdot N_6 \cdot \left[N_1{}^2 \cdot N_3 + N_2 \cdot N_4 \cdot (N_1 - N_3) \right]}{N_1 \cdot N_5 \cdot (N_1 \cdot N_3 + N_2 \cdot N_4) + N_2 \cdot N_4 \cdot (N_1 \cdot N_6 - N_3 \cdot N_5 - N_3 \cdot N_6)} = 0$$

$$N_1 - \frac{1}{A} = 0 \qquad N_2 - \frac{1}{B} = 0 \qquad N_3 - \frac{1}{C} = 0$$

$$N_4 - \frac{1}{D} = 0 \qquad N_5 - \frac{1}{E} = 0 \qquad N_6 - \frac{1}{F} = 0$$

$$R_1 - \frac{\left(C \cdot A - A^2 + B \cdot D \right)}{A \cdot C \cdot E - A^2 \cdot F - A^2 \cdot E + A \cdot C \cdot F + B \cdot D \cdot F} = 0$$



A = 0.31839
B = 0.26772
C = 0.68801
D = 0.52321
E = 0.44563
F = 0.60162

Unit = 1.00000
N_1 = 3.14079
N_2 = 3.73524
N_3 = 1.45348
N_4 = 1.91129
N_5 = 2.24401
N_6 = 1.66218

$$R_1 - \frac{N_5 \cdot N_6 \cdot (N_1{}^2 \cdot N_3 + N_2 \cdot N_4 \cdot (N_1 - N_3))}{N_1 \cdot N_5 \cdot (N_1 \cdot N_3 + N_2 \cdot N_4) + N_2 \cdot N_4 \cdot (N_1 \cdot N_6 - N_3 \cdot N_5 - N_3 \cdot N_6)} = 0.00000$$

$$R_1 - \frac{((A \cdot C - A^2) + B \cdot D)}{((A \cdot C \cdot E - A^2 \cdot F - A^2 \cdot E) + A \cdot C \cdot F + B \cdot D \cdot F)} = 0.00000$$

$$\frac{((A \cdot C - A^2) + B \cdot D)}{((A \cdot C \cdot E - A^2 \cdot F - A^2 \cdot E) + A \cdot C \cdot F + B \cdot D \cdot F)} - \frac{N_5 \cdot N_6 \cdot (N_1{}^2 \cdot N_3 + N_2 \cdot N_4 \cdot (N_1 - N_3))}{N_1 \cdot N_5 \cdot (N_1 \cdot N_3 + N_2 \cdot N_4) + N_2 \cdot N_4 \cdot (N_1 \cdot N_6 - N_3 \cdot N_5 - N_3 \cdot N_6)} = 0.00000$$

$R_1 = 1.24211$

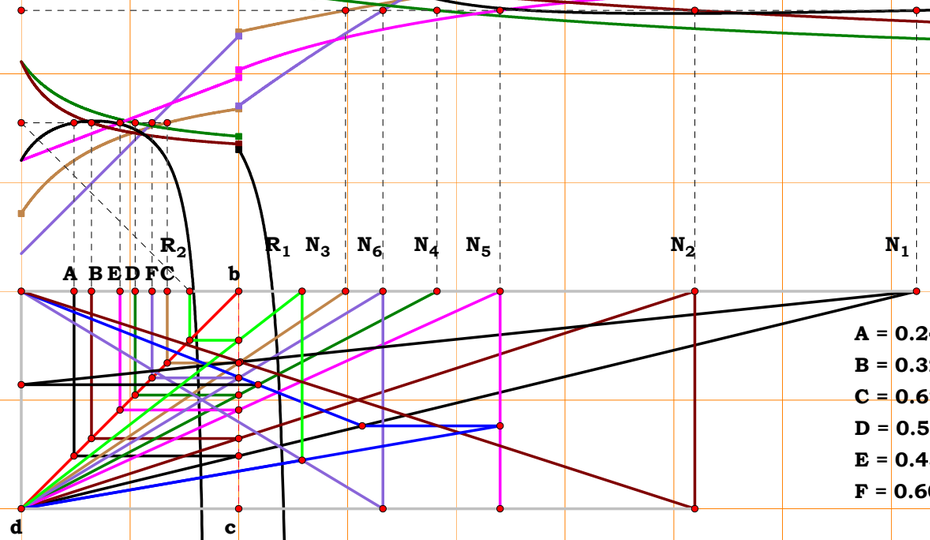
$$\frac{N_5 \cdot N_6 \cdot (N_1{}^2 \cdot N_3 + N_2 \cdot N_4 \cdot (N_1 - N_3))}{N_1 \cdot N_5 \cdot (N_1 \cdot N_3 + N_2 \cdot N_4) + N_2 \cdot N_4 \cdot (N_1 \cdot N_6 - N_3 \cdot N_5 - N_3 \cdot N_6)} = 1.24211$$

$$\frac{((A \cdot C - A^2) + B \cdot D)}{((A \cdot C \cdot E - A^2 \cdot F - A^2 \cdot E) + A \cdot C \cdot F + B \cdot D \cdot F)} = 1.24211$$

$R_2 = 0.80508$

$$\frac{((A \cdot C \cdot E - A^2 \cdot F - A^2 \cdot E) + A \cdot C \cdot F + B \cdot D \cdot F)}{((A \cdot C - A^2) + B \cdot D)} = 0.80508$$

$$R_2 - \frac{((A \cdot C \cdot E - A^2 \cdot F - A^2 \cdot E) + A \cdot C \cdot F + B \cdot D \cdot F)}{((A \cdot C - A^2) + B \cdot D)} = 0.00000$$



Unit = 1.00000

N_1 = 4.11664

N_2 = 3.09718

N_3 = 1.49123

N_4 = 1.91129

N_5 = 2.20099

N_6 = 1.66218

A = 0.24292

B = 0.32287

C = 0.67059

D = 0.52321

E = 0.45434

F = 0.60162

$$R_1 = 1.29094$$

$$\frac{N_5 \cdot N_6 \cdot (N_1^2 \cdot N_3 + N_2 \cdot N_4 \cdot (N_1 - N_3))}{N_1 \cdot N_5 \cdot (N_1 \cdot N_3 + N_2 \cdot N_4) + N_2 \cdot N_4 \cdot (N_1 \cdot N_6 - N_3 \cdot N_5 - N_3 \cdot N_6)} = 1.29094$$

$$\frac{((A \cdot C - A^2) + B \cdot D)}{((A \cdot C \cdot E - A^2 \cdot F - A^2 \cdot E) + A \cdot C \cdot F + B \cdot D \cdot F)} = 1.29094$$

$$R_1 - \frac{N_5 \cdot N_6 \cdot (N_1^2 \cdot N_3 + N_2 \cdot N_4 \cdot (N_1 - N_3))}{N_1 \cdot N_5 \cdot (N_1 \cdot N_3 + N_2 \cdot N_4) + N_2 \cdot N_4 \cdot (N_1 \cdot N_6 - N_3 \cdot N_5 - N_3 \cdot N_6)} = 0.00000$$

$$R_1 - \frac{((A \cdot C - A^2) + B \cdot D)}{((A \cdot C \cdot E - A^2 \cdot F - A^2 \cdot E) + A \cdot C \cdot F + B \cdot D \cdot F)} = 0.00000$$

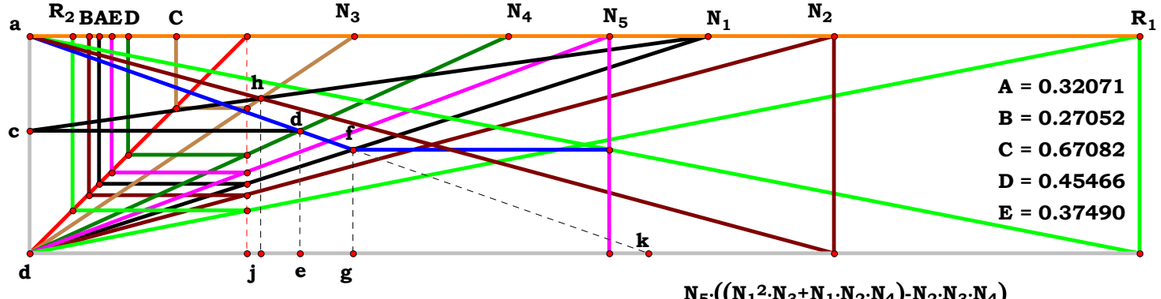
$$\frac{((A \cdot C - A^2) + B \cdot D)}{((A \cdot C \cdot E - A^2 \cdot F - A^2 \cdot E) + A \cdot C \cdot F + B \cdot D \cdot F)} - \frac{N_5 \cdot N_6 \cdot (N_1^2 \cdot N_3 + N_2 \cdot N_4 \cdot (N_1 - N_3))}{N_1 \cdot N_5 \cdot (N_1 \cdot N_3 + N_2 \cdot N_4) + N_2 \cdot N_4 \cdot (N_1 \cdot N_6 - N_3 \cdot N_5 - N_3 \cdot N_6)} = 0.00000$$

$$R_2 = 0.77463$$

$$\frac{((A \cdot C \cdot E - A^2 \cdot F - A^2 \cdot E) + A \cdot C \cdot F + B \cdot D \cdot F)}{((A \cdot C - A^2) + B \cdot D)} = 0.77463$$

$$R_2 - \frac{((A \cdot C \cdot E - A^2 \cdot F - A^2 \cdot E) + A \cdot C \cdot F + B \cdot D \cdot F)}{((A \cdot C - A^2) + B \cdot D)} = 0.00000$$

1CST7R6



A = 0.32071
B = 0.27052
C = 0.67082
D = 0.45466
E = 0.37490

ab = 1.00000
N_1 = 3.11808
N_2 = 3.69662
N_3 = 1.49072
N_4 = 2.19943
N_5 = 2.66738

$R_1 = 5.10246$

$$\frac{N_5\cdot((N_1^2\cdot N_3+N_1\cdot N_2\cdot N_4)-N_2\cdot N_3\cdot N_4)}{N_1^2\cdot N_3} = 5.10246$$

$$\frac{((A\cdot C-A^2)+B\cdot D)}{(B\cdot D\cdot E)} = 5.10246$$

Given.

Unit. ab := 1 $N_1 := 3.11808$

$N_2 := 3.69662$ $N_3 := 1.49072$

$N_4 := 2.19943$ $N_5 := 2.66738$

$$A := \frac{1}{N_1} \quad B := \frac{1}{N_2} \quad C := \frac{1}{N_3} \quad D := \frac{1}{N_4} \quad E := \frac{1}{N_5}$$

Descriptions.

$$hj := \frac{N_2}{N_2 + N_3} \qquad bj := hj \cdot N_3$$

$$ac := \frac{N_1 \cdot (1 - hj)}{N_1 - bj} \qquad be := N_4 \cdot (1 - ac)$$

$$bk := \frac{be}{ac} \qquad fg := \frac{bk}{N_1 + bk}$$

$$R_1 := \frac{N_5}{(1 - fg)} \qquad R_1 = 5.102458$$

Definitions.

$$R_1 - \frac{N_5 \cdot \left(N_1^{\,2} \cdot N_3 + N_1 \cdot N_2 \cdot N_4 - N_2 \cdot N_3 \cdot N_4\right)}{N_1^{\,2} \cdot N_3} = 0$$

$$N_1 - \frac{1}{A} = 0 \qquad N_2 - \frac{1}{B} = 0 \qquad N_3 - \frac{1}{C} = 0 \qquad N_4 - \frac{1}{D} = 0 \qquad N_5 - \frac{1}{E} = 0$$

$$R_1 - \frac{\left(C \cdot A - A^2 + B \cdot D\right)}{B \cdot D \cdot E} = 0$$

$$R_1 - \frac{N_5\cdot((N_1^2\cdot N_3+N_1\cdot N_2\cdot N_4)-N_2\cdot N_3\cdot N_4)}{N_1^2\cdot N_3} = 0.00000$$

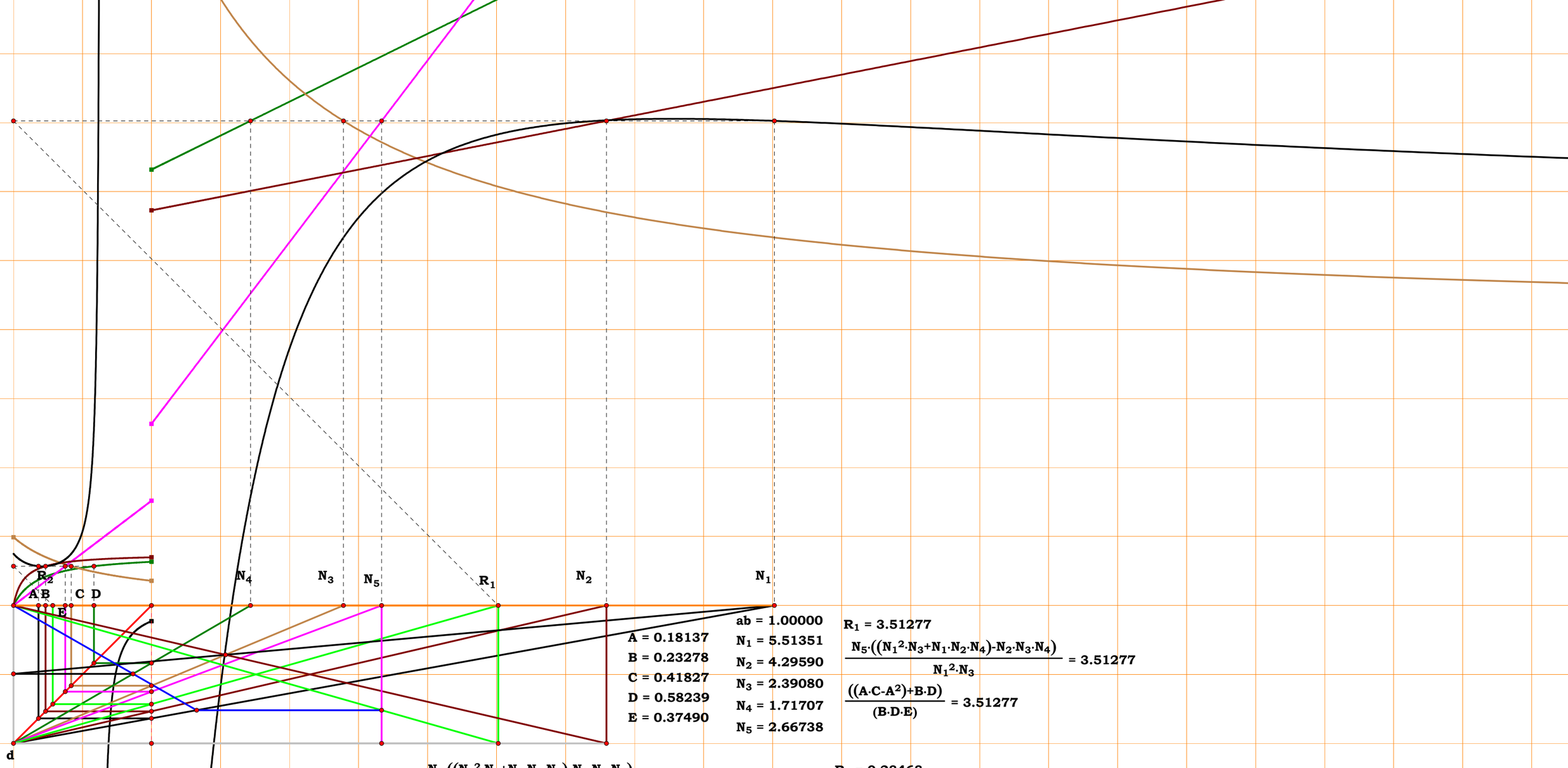
$$R_1 - \frac{((A\cdot C-A^2)+B\cdot D)}{(B\cdot D\cdot E)} = 0.00000$$

$$\frac{((A\cdot C-A^2)+B\cdot D)}{(B\cdot D\cdot E)} - \frac{N_5\cdot((N_1^2\cdot N_3+N_1\cdot N_2\cdot N_4)-N_2\cdot N_3\cdot N_4)}{N_1^2\cdot N_3} = 0.00000$$

$R_2 = 0.19598$

$$\frac{(B\cdot D\cdot E)}{((A\cdot C-A^2)+B\cdot D)} = 0.19598$$

$$R_2 - \frac{(B\cdot D\cdot E)}{((A\cdot C-A^2)+B\cdot D)} = 0.00000$$



ab = 1.00000
N_1 = 5.51351
N_2 = 4.29590
N_3 = 2.39080
N_4 = 1.71707
N_5 = 2.66738

A = 0.18137
B = 0.23278
C = 0.41827
D = 0.58239
E = 0.37490

$R_1 = 3.51277$

$$\frac{N_5\cdot((N_1^2\cdot N_3+N_1\cdot N_2\cdot N_4)-N_2\cdot N_3\cdot N_4)}{N_1^2\cdot N_3} = 3.51277$$

$$\frac{((A\cdot C-A^2)+B\cdot D)}{(B\cdot D\cdot E)} = 3.51277$$

$$R_1-\frac{N_5\cdot((N_1^2\cdot N_3+N_1\cdot N_2\cdot N_4)-N_2\cdot N_3\cdot N_4)}{N_1^2\cdot N_3} = 0.00000$$

$$R_1-\frac{((A\cdot C-A^2)+B\cdot D)}{(B\cdot D\cdot E)} = 0.00000$$

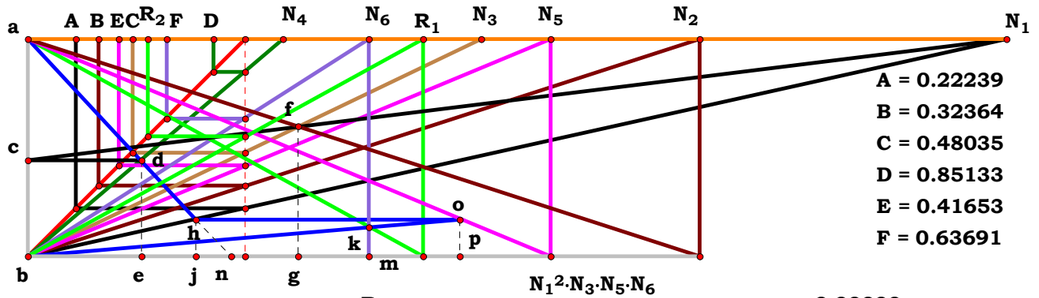
$$\frac{((A\cdot C-A^2)+B\cdot D)}{(B\cdot D\cdot E)}-\frac{N_5\cdot((N_1^2\cdot N_3+N_1\cdot N_2\cdot N_4)-N_2\cdot N_3\cdot N_4)}{N_1^2\cdot N_3} = 0.00000$$

$R_2 = 0.28468$

$$\frac{(B\cdot D\cdot E)}{((A\cdot C-A^2)+B\cdot D)} = 0.28468$$

$$R_2-\frac{(B\cdot D\cdot E)}{((A\cdot C-A^2)+B\cdot D)} = 0.00000$$

1CST7R7



Given.

Unit. $ab := 1$ $N_1 := 4.49660$

$N_2 := 3.08990$ $N_3 := 2.08183$

$N_4 := 1.17463$ $N_5 := 2.40079$ $N_6 := 1.57009$

$A := \frac{1}{N_1}$ $B := \frac{1}{N_2}$ $C := \frac{1}{N_3}$ $D := \frac{1}{N_4}$ $E := \frac{1}{N_5}$ $F := \frac{1}{N_6}$

Descriptions.

$fg := \frac{N_2}{N_2 + N_3}$ $bg := fg \cdot N_3$ $ac := \frac{N_1 \cdot (1 - fg)}{N_1 - bg}$

$be := N_4 \cdot (1 - ac)$ $bn := \frac{be}{ac}$ $hj := \frac{bn}{bn + N_1}$

$bp := N_5 \cdot (1 - hj)$ $km := \frac{N_6 \cdot hj}{bp}$ $R_1 := \frac{N_6}{1 - km}$

$R_1 = 1.817589$

Definitions.

$$R_1 - \frac{N_1^2 \cdot N_3 \cdot N_5 \cdot N_6}{N_1^2 \cdot N_3 \cdot N_5 - N_1 \cdot N_2 \cdot N_4 \cdot N_6 + N_2 \cdot N_3 \cdot N_4 \cdot N_6} = 0$$

$N_1 - \frac{1}{A} = 0$ $N_2 - \frac{1}{B} = 0$ $N_3 - \frac{1}{C} = 0$

$N_4 - \frac{1}{D} = 0$ $N_5 - \frac{1}{E} = 0$ $N_6 - \frac{1}{F} = 0$

$$R_1 - \frac{B \cdot D}{E \cdot A^2 - C \cdot E \cdot A + B \cdot D \cdot F} = 0$$

$ab = 1.00000$

$A = 0.22239$ $N_1 = 4.49660$

$B = 0.32364$ $N_2 = 3.08990$

$C = 0.48035$ $N_3 = 2.08183$

$D = 0.85133$ $N_4 = 1.17463$

$E = 0.41653$ $N_5 = 2.40079$

$F = 0.63691$ $N_6 = 1.57009$

$$R_1 - \frac{N_1^2 \cdot N_3 \cdot N_5 \cdot N_6}{(N_1^2 \cdot N_3 \cdot N_5 - N_1 \cdot N_2 \cdot N_4 \cdot N_6) + N_2 \cdot N_3 \cdot N_4 \cdot N_6} = 0.00000$$

$$R_1 - \frac{(B \cdot D)}{((A^2 \cdot E - A \cdot C \cdot E) + B \cdot D \cdot F)} = 0.00000$$

$$\frac{(B \cdot D)}{((A^2 \cdot E - A \cdot C \cdot E) + B \cdot D \cdot F)} - \frac{N_1^2 \cdot N_3 \cdot N_5 \cdot N_6}{(N_1^2 \cdot N_3 \cdot N_5 - N_1 \cdot N_2 \cdot N_4 \cdot N_6) + N_2 \cdot N_3 \cdot N_4 \cdot N_6} = 0.00000$$

$R_1 = 1.81759$

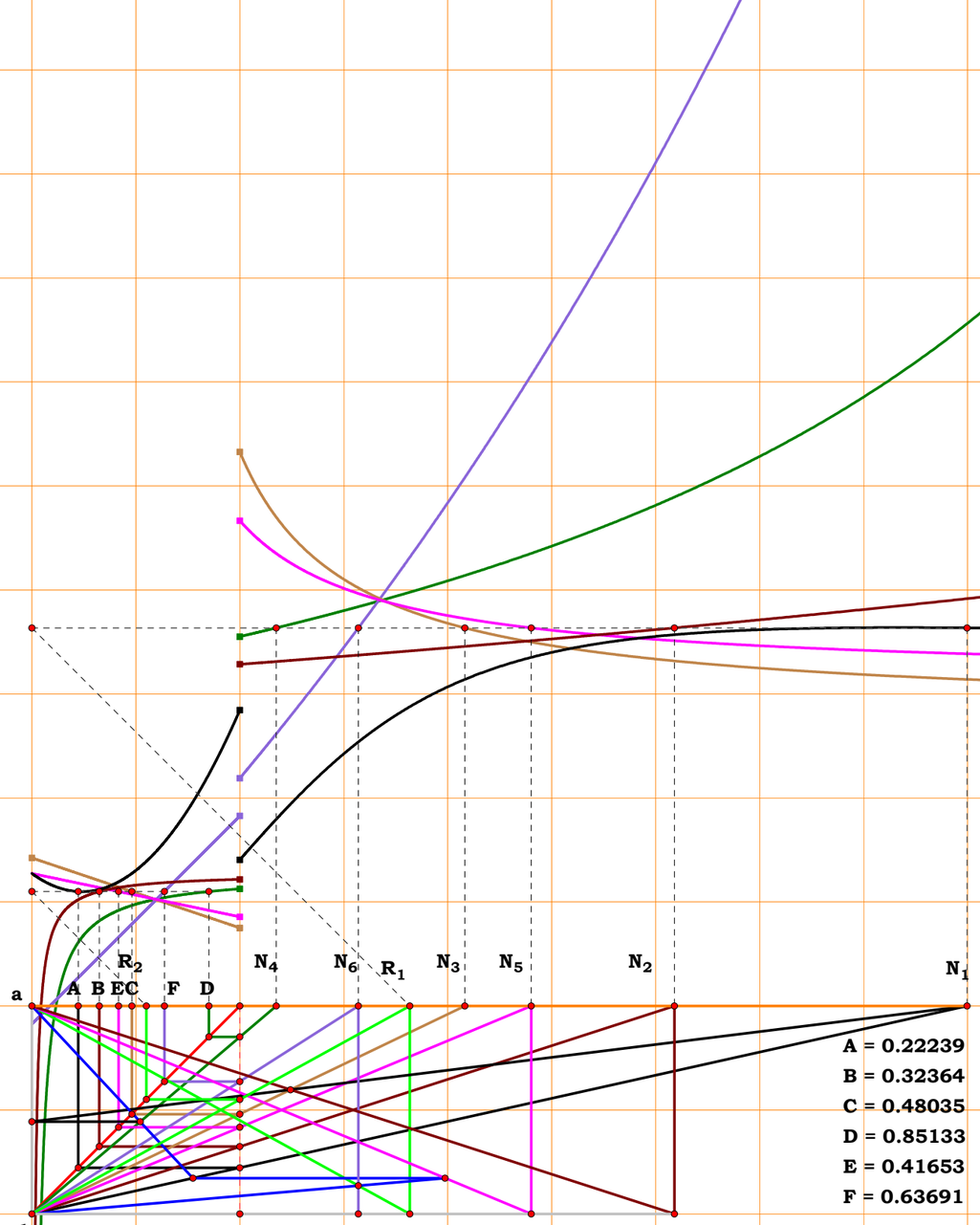
$$\frac{N_1^2 \cdot N_3 \cdot N_5 \cdot N_6}{(N_1^2 \cdot N_3 \cdot N_5 - N_1 \cdot N_2 \cdot N_4 \cdot N_6) + N_2 \cdot N_3 \cdot N_4 \cdot N_6} = 1.81759$$

$$\frac{(B \cdot D)}{((A^2 \cdot E - A \cdot C \cdot E) + B \cdot D \cdot F)} = 1.81759$$

$R_2 = 0.55018$

$$\frac{((A^2 \cdot E - A \cdot C \cdot E) + B \cdot D \cdot F)}{(B \cdot D)} = 0.55018$$

$$R_2 - \frac{((A^2 \cdot E - A \cdot C \cdot E) + B \cdot D \cdot F)}{(B \cdot D)} = 0.00000$$



ab = 1.00000
N1 = 4.49660
N2 = 3.08990
N3 = 2.08183
N4 = 1.17463
N5 = 2.40079
N6 = 1.57009

A = 0.22239
B = 0.32364
C = 0.48035
D = 0.85133
E = 0.41653
F = 0.63691

$$R_1 = 1.81759$$

$$\frac{N_1^2 \cdot N_3 \cdot N_5 \cdot N_6}{(N_1^2 \cdot N_3 \cdot N_5 - N_1 \cdot N_2 \cdot N_4 \cdot N_6) + N_2 \cdot N_3 \cdot N_4 \cdot N_6} = 1.81759$$

$$\frac{(B \cdot D)}{((A^2 \cdot E - A \cdot C \cdot E) + B \cdot D \cdot F)} = 1.81759$$

$$R_1 - \frac{N_1^2 \cdot N_3 \cdot N_5 \cdot N_6}{(N_1^2 \cdot N_3 \cdot N_5 - N_1 \cdot N_2 \cdot N_4 \cdot N_6) + N_2 \cdot N_3 \cdot N_4 \cdot N_6} = 0.00000$$

$$R_1 - \frac{(B \cdot D)}{((A^2 \cdot E - A \cdot C \cdot E) + B \cdot D \cdot F)} = 0.00000$$

$$\frac{(B \cdot D)}{((A^2 \cdot E - A \cdot C \cdot E) + B \cdot D \cdot F)} - \frac{N_1^2 \cdot N_3 \cdot N_5 \cdot N_6}{(N_1^2 \cdot N_3 \cdot N_5 - N_1 \cdot N_2 \cdot N_4 \cdot N_6) + N_2 \cdot N_3 \cdot N_4 \cdot N_6} = 0.00000$$

$$R_2 = 0.55018$$

$$\frac{((A^2 \cdot E - A \cdot C \cdot E) + B \cdot D \cdot F)}{(B \cdot D)} = 0.55018$$

$$R_2 - \frac{((A^2 \cdot E - A \cdot C \cdot E) + B \cdot D \cdot F)}{(B \cdot D)} = 0.00000$$

1CST7R8

Given.

Unit. $ab := 1 \quad N_1 := 4.37187$

$N_2 := 1.75249 \quad N_3 := 1.93784$

$N_4 := 2.37383$

$$A := \frac{1}{N_1} \quad B := \frac{1}{N_2} \quad C := \frac{1}{N_3} \quad D := \frac{1}{N_4}$$

Descriptions.

$$de := \frac{N_3}{N_3 + N_4} \qquad ad := N_4 \cdot de$$

$$ac := \frac{de \cdot N_1}{N_1 - ad} \qquad R_1 := \frac{N_2}{ac}$$

$R_1 = 2.947705$

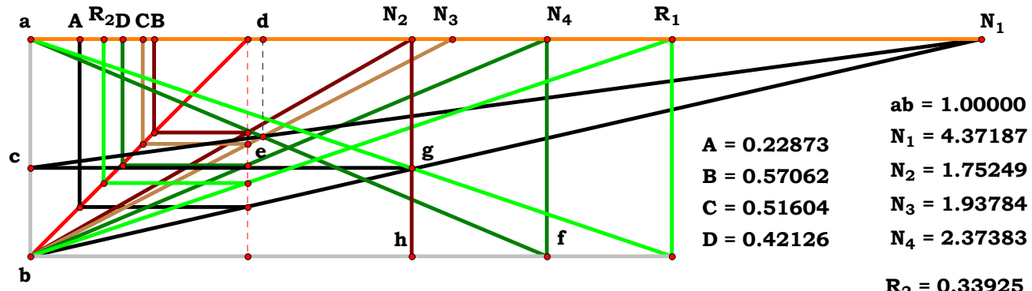
Definitions.

$$R_1 - \frac{N_1 \cdot N_2 \cdot N_3 + N_1 \cdot N_2 \cdot N_4 - N_2 \cdot N_3 \cdot N_4}{N_1 \cdot N_3} = 0$$

$$N_1 - \frac{1}{A} = 0 \qquad N_2 - \frac{1}{B} = 0$$

$$N_3 - \frac{1}{C} = 0 \qquad N_4 - \frac{1}{D} = 0$$

$$R_1 - \frac{(C - A + D)}{B \cdot D} = 0$$



A = 0.22873
B = 0.57062
C = 0.51604
D = 0.42126

$$R_1 - \frac{(N_1 \cdot N_2 \cdot N_3 + N_1 \cdot N_2 \cdot N_4) - N_2 \cdot N_3 \cdot N_4}{N_1 \cdot N_3} = 0.00000$$

$$R_1 - \frac{((C-A)+D)}{(B \cdot D)} = 0.00000$$

$$\frac{((C-A)+D)}{(B \cdot D)} - \frac{(N_1 \cdot N_2 \cdot N_3 + N_1 \cdot N_2 \cdot N_4) - N_2 \cdot N_3 \cdot N_4}{N_1 \cdot N_3} = 0.00000$$

ab = 1.00000
$N_1 = 4.37187$
$N_2 = 1.75249$
$N_3 = 1.93784$
$N_4 = 2.37383$

$R_1 = 2.94770$

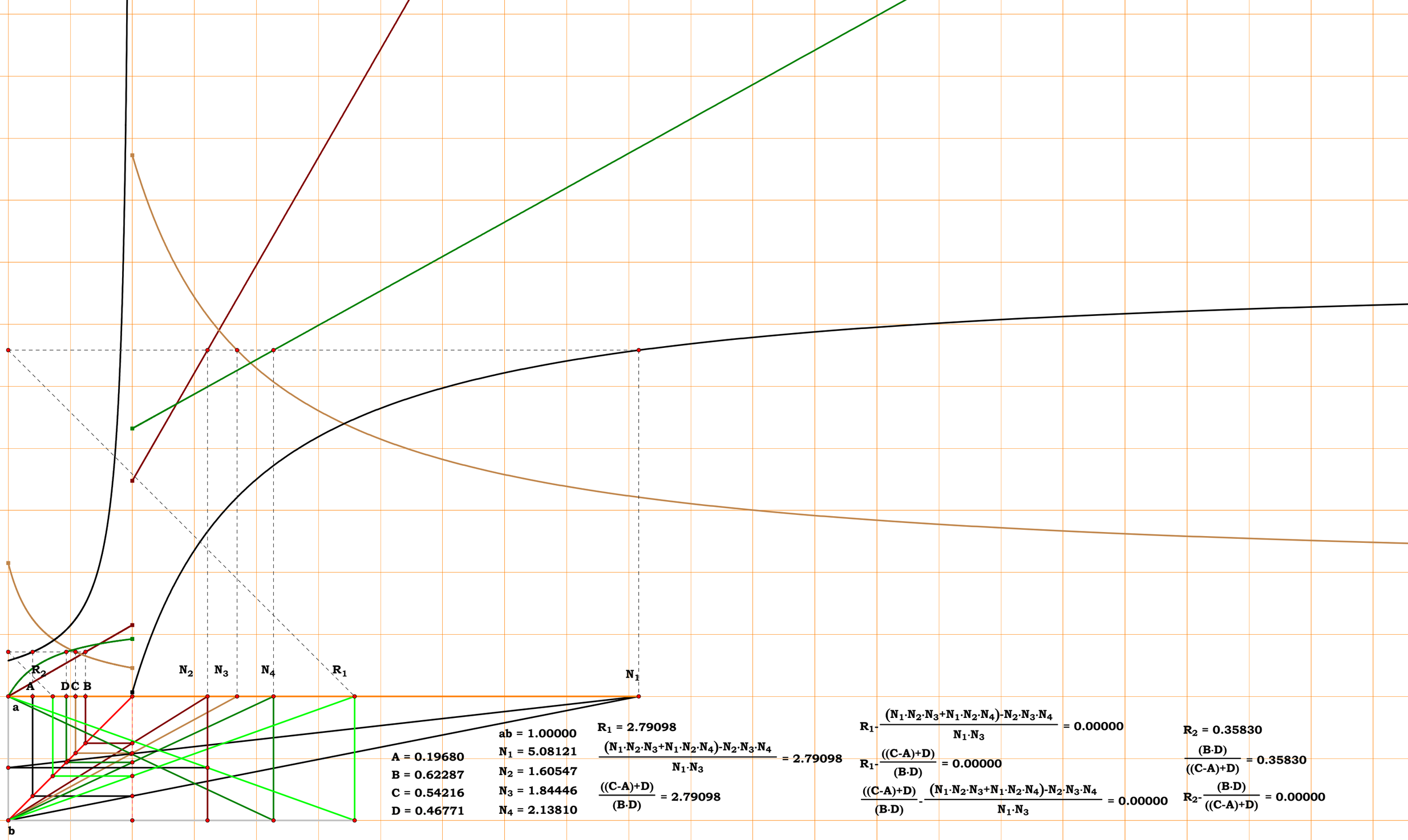
$$\frac{(N_1 \cdot N_2 \cdot N_3 + N_1 \cdot N_2 \cdot N_4) - N_2 \cdot N_3 \cdot N_4}{N_1 \cdot N_3} = 2.94770$$

$$\frac{((C-A)+D)}{(B \cdot D)} = 2.94770$$

$R_2 = 0.33925$

$$\frac{(B \cdot D)}{((C-A)+D)} = 0.33925$$

$$R_2 - \frac{(B \cdot D)}{((C-A)+D)} = 0.00000$$



$A = 0.19680$
$B = 0.62287$
$C = 0.54216$
$D = 0.46771$

$ab = 1.00000$
$N_1 = 5.08121$
$N_2 = 1.60547$
$N_3 = 1.84446$
$N_4 = 2.13810$

$R_1 = 2.79098$

$$\frac{(N_1 \cdot N_2 \cdot N_3 + N_1 \cdot N_2 \cdot N_4) - N_2 \cdot N_3 \cdot N_4}{N_1 \cdot N_3} = 2.79098$$

$$\frac{((C-A)+D)}{(B \cdot D)} = 2.79098$$

$$R_1 - \frac{(N_1 \cdot N_2 \cdot N_3 + N_1 \cdot N_2 \cdot N_4) - N_2 \cdot N_3 \cdot N_4}{N_1 \cdot N_3} = 0.00000$$

$$R_1 - \frac{((C-A)+D)}{(B \cdot D)} = 0.00000$$

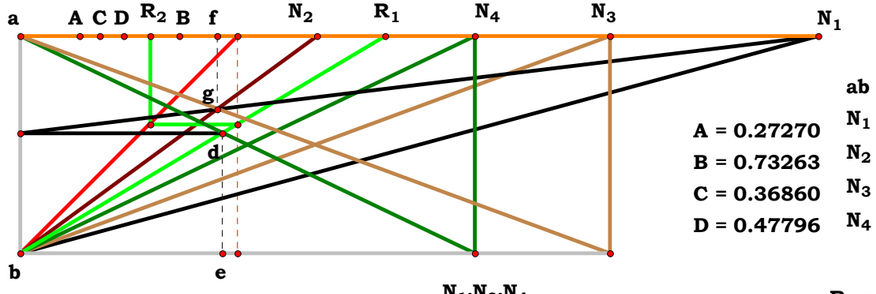
$$\frac{((C-A)+D)}{(B \cdot D)} - \frac{(N_1 \cdot N_2 \cdot N_3 + N_1 \cdot N_2 \cdot N_4) - N_2 \cdot N_3 \cdot N_4}{N_1 \cdot N_3} = 0.00000$$

$R_2 = 0.35830$

$$\frac{(B \cdot D)}{((C-A)+D)} = 0.35830$$

$$R_2 - \frac{(B \cdot D)}{((C-A)+D)} = 0.00000$$

1CST7R9



Given.

Unit. $ab := 1 \quad N_1 := 3.66705$

$N_2 := 1.36495 \quad N_3 := 2.71296 \quad N_4 := 2.09224$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2} \quad C := \frac{1}{N_3} \quad D := \frac{1}{N_4}$

Descriptions.

$af := \frac{N_2 \cdot N_3}{N_2 + N_3} \qquad fg := \frac{af}{N_3}$

$ac := \frac{fg \cdot N_1}{N_1 - af} \qquad de := 1 - ac$

$be := N_4 \cdot ac \qquad R_1 := \frac{be}{de} \qquad R_1 = 1.676785$

Definitions.

$$R_1 - \frac{N_1 \cdot N_2 \cdot N_4}{N_1 \cdot N_3 - N_2 \cdot N_3} = 0$$

$N_1 - \frac{1}{A} = 0 \qquad N_2 - \frac{1}{B} = 0$

$N_3 - \frac{1}{C} = 0 \qquad N_4 - \frac{1}{D} = 0$

$$R_1 - \frac{C}{D \cdot (B - A)} = 0$$

$A = 0.27270$
$B = 0.73263$
$C = 0.36860$
$D = 0.47796$

$ab = 1.00000$
$N_1 = 3.66705$
$N_2 = 1.36495$
$N_3 = 2.71296$
$N_4 = 2.09224$

$R_1 = 1.67679$

$\frac{N_1 \cdot N_2 \cdot N_4}{N_1 \cdot N_3 - N_2 \cdot N_3} = 1.67679$

$\frac{C}{(D \cdot (B-A))} = 1.67679$

$R_1 - \frac{N_1 \cdot N_2 \cdot N_4}{N_1 \cdot N_3 - N_2 \cdot N_3} = 0.00000$

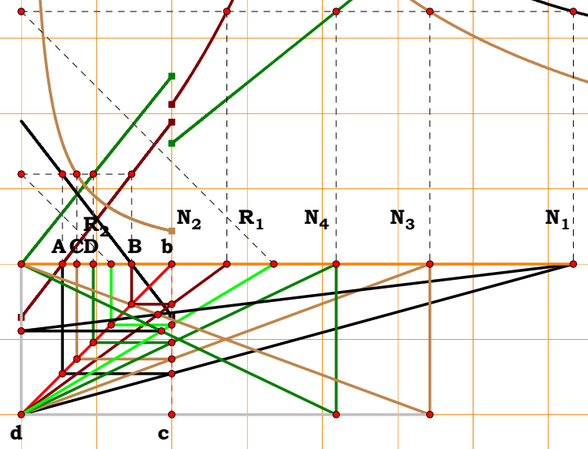
$R_1 - \frac{C}{(D \cdot (B-A))} = 0.00000$

$\frac{C}{(D \cdot (B-A))} - \frac{N_1 \cdot N_2 \cdot N_4}{N_1 \cdot N_3 - N_2 \cdot N_3} = 0.00000$

$R_2 = 0.59638$

$\frac{(D \cdot (B-A))}{C} = 0.59638$

$R_2 - \frac{(D \cdot (B-A))}{C} = 0.00000$



$ab = 1.00000$

$A = 0.27270$
$B = 0.73263$
$C = 0.36860$
$D = 0.47796$

$N_1 = 3.66705$
$N_2 = 1.36495$
$N_3 = 2.71296$
$N_4 = 2.09224$

$R_1 = 1.67679$

$$\frac{N_1 \cdot N_2 \cdot N_4}{N_1 \cdot N_3 - N_2 \cdot N_3} = 1.67679$$

$$\frac{C}{(D \cdot (B-A))} = 1.67679$$

$$R_1 - \frac{N_1 \cdot N_2 \cdot N_4}{N_1 \cdot N_3 - N_2 \cdot N_3} = 0.00000$$

$$R_1 - \frac{C}{(D \cdot (B-A))} = 0.00000$$

$$\frac{C}{(D \cdot (B-A))} - \frac{N_1 \cdot N_2 \cdot N_4}{N_1 \cdot N_3 - N_2 \cdot N_3} = 0.00000$$

$R_2 = 0.59638$

$$\frac{(D \cdot (B-A))}{C} = 0.59638$$

$$R_2 - \frac{(D \cdot (B-A))}{C} = 0.00000$$

1CST7R10

Given.

Unit. $ab := 1$

$N_1 := 3.30816 \quad N_2 := 2.26747$

$N_3 := 1.38991 \quad N_4 := 1.88380$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2} \quad C := \frac{1}{N_3} \quad D := \frac{1}{N_4}$

Descriptions.

$de := \frac{N_3}{N_3 + N_4} \quad ad := N_4 \cdot de$

$ac := \frac{de \cdot N_1}{N_1 - ad} \quad R_1 := \frac{N_2}{1 - ac}$

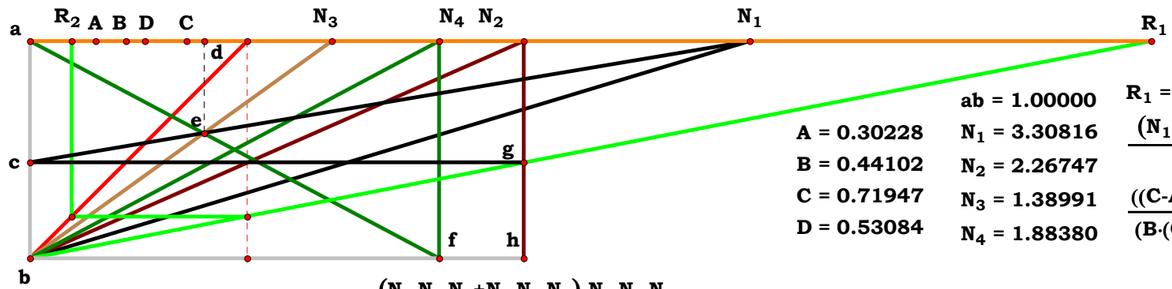
$R_1 = 5.152662$

Definitions.

$R_1 - \frac{N_1 \cdot N_2 \cdot N_3 + N_1 \cdot N_2 \cdot N_4 - N_2 \cdot N_3 \cdot N_4}{N_1 \cdot N_4 - N_3 \cdot N_4} = 0$

$N_1 - \frac{1}{A} = 0 \quad N_2 - \frac{1}{B} = 0 \quad N_3 - \frac{1}{C} = 0 \quad N_4 - \frac{1}{D} = 0$

$R_1 - \frac{(C - A + D)}{B \cdot (C - A)} = 0$



A = 0.30228
B = 0.44102
C = 0.71947
D = 0.53084

ab = 1.00000
N_1 = 3.30816
N_2 = 2.26747
N_3 = 1.38991
N_4 = 1.88380

$R_1 = 5.15265$

$\frac{(N_1 \cdot N_2 \cdot N_3 + N_1 \cdot N_2 \cdot N_4) - N_2 \cdot N_3 \cdot N_4}{N_1 \cdot N_4 - N_3 \cdot N_4} = 5.15265$

$\frac{((C-A)+D)}{(B \cdot (C-A))} = 5.15265$

$R_1 - \frac{(N_1 \cdot N_2 \cdot N_3 + N_1 \cdot N_2 \cdot N_4) - N_2 \cdot N_3 \cdot N_4}{N_1 \cdot N_4 - N_3 \cdot N_4} = 0.00000$

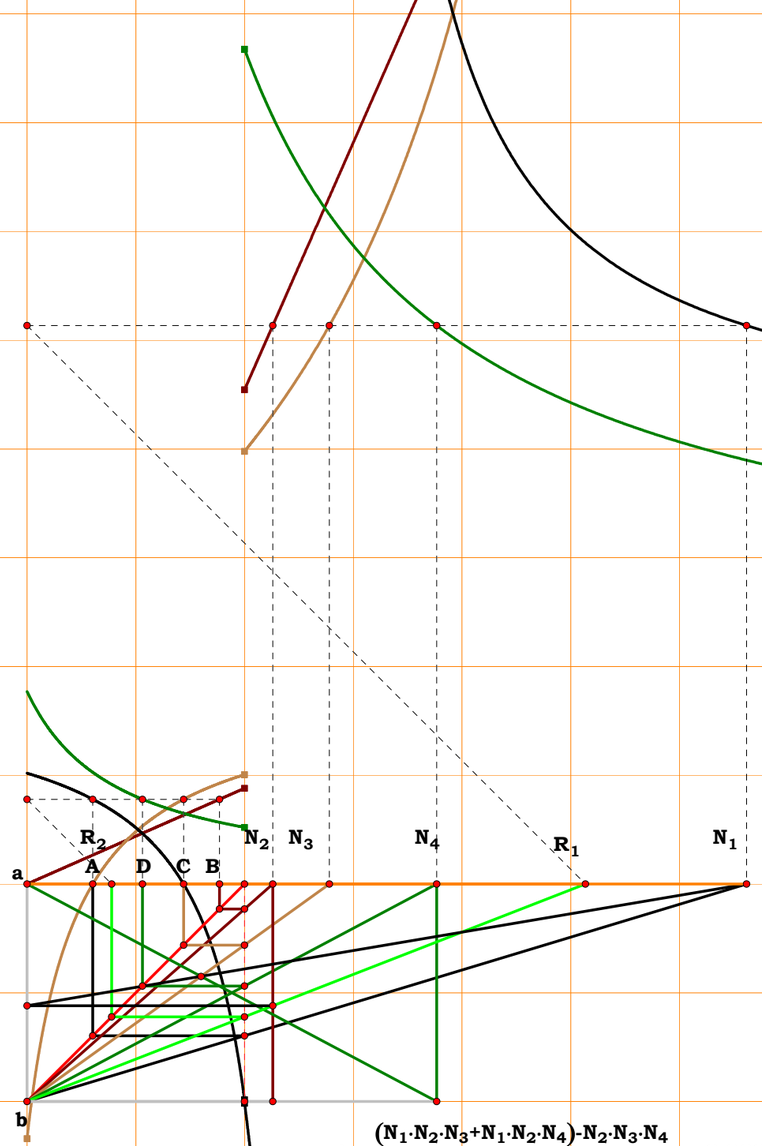
$R_1 - \frac{((C-A)+D)}{(B \cdot (C-A))} = 0.00000$

$\frac{((C-A)+D)}{(B \cdot (C-A))} - \frac{(N_1 \cdot N_2 \cdot N_3 + N_1 \cdot N_2 \cdot N_4) - N_2 \cdot N_3 \cdot N_4}{N_1 \cdot N_4 - N_3 \cdot N_4} = 0.00000$

$R_2 = 0.19407$

$\frac{(B \cdot (C-A))}{((C-A)+D)} = 0.19407$

$R_2 - \frac{(B \cdot (C-A))}{((C-A)+D)} = 0.00000$



$ab = 1.00000$

$A = 0.30228$ $B = 0.88516$ $C = 0.71947$ $D = 0.53084$

$N_1 = 3.30816$ $N_2 = 1.12974$ $N_3 = 1.38991$ $N_4 = 1.88380$

$R_1 = 2.56726$

$$\frac{(N_1 \cdot N_2 \cdot N_3 + N_1 \cdot N_2 \cdot N_4) - N_2 \cdot N_3 \cdot N_4}{N_1 \cdot N_4 - N_3 \cdot N_4} = 2.56726$$

$$\frac{((C-A)+D)}{(B \cdot (C-A))} = 2.56726$$

$$R_1 - \frac{(N_1 \cdot N_2 \cdot N_3 + N_1 \cdot N_2 \cdot N_4) - N_2 \cdot N_3 \cdot N_4}{N_1 \cdot N_4 - N_3 \cdot N_4} = 0.00000$$

$$R_1 - \frac{((C-A)+D)}{(B \cdot (C-A))} = 0.00000$$

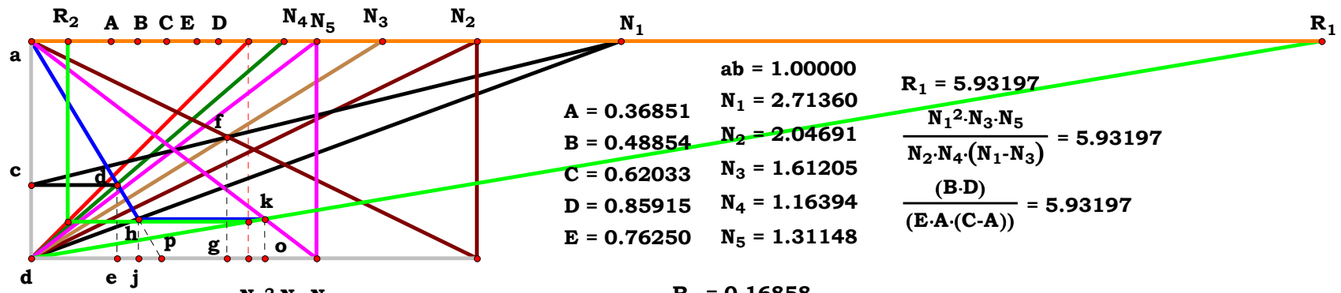
$$\frac{((C-A)+D)}{(B \cdot (C-A))} - \frac{(N_1 \cdot N_2 \cdot N_3 + N_1 \cdot N_2 \cdot N_4) - N_2 \cdot N_3 \cdot N_4}{N_1 \cdot N_4 - N_3 \cdot N_4} = 0.00000$$

$R_2 = 0.38952$

$$\frac{(B \cdot (C-A))}{((C-A)+D)} = 0.38952$$

$$R_2 - \frac{(B \cdot (C-A))}{((C-A)+D)} = 0.00000$$

1CST7R11



Given.

Unit. $ab := 1$ $N_1 := 2.71360$

$N_2 := 2.04691$ $N_3 := 1.61205$

$N_4 := 1.16394$ $N_5 := 1.31148$

$A := \frac{1}{N_1}$ $B := \frac{1}{N_2}$ $C := \frac{1}{N_3}$ $D := \frac{1}{N_4}$ $E := \frac{1}{N_5}$

Descriptions.

$fg := \frac{N_2}{N_2 + N_3}$ $bg := N_3 \cdot fg$ $ac := \frac{N_1 \cdot (1 - fg)}{N_1 - bg}$

$be := N_4 \cdot (1 - ac)$ $bp := \frac{be}{ac}$ $hj := \frac{bp}{bp + N_1}$

$bo := N_5 \cdot (1 - hj)$ $R_1 := \frac{bo}{hj}$

$R_1 = 5.931961$

Definitions.

$$R_1 - \frac{N_1^{\,2} \cdot N_3 \cdot N_5}{N_2 \cdot N_4 \cdot (N_1 - N_3)} = 0$$

$N_1 - \frac{1}{A} = 0$ $N_2 - \frac{1}{B} = 0$ $N_3 - \frac{1}{C} = 0$ $N_4 - \frac{1}{D} = 0$ $N_5 - \frac{1}{E} = 0$

$$R_1 - \frac{B \cdot D}{E \cdot [A \cdot (C - A)]} = 0$$

$ab = 1.00000$

$A = 0.36851$ $N_1 = 2.71360$

$B = 0.48854$ $N_2 = 2.04691$

$C = 0.62033$ $N_3 = 1.61205$

$D = 0.85915$ $N_4 = 1.16394$

$E = 0.76250$ $N_5 = 1.31148$

$R_1 = 5.93197$

$\frac{N_1^{\,2} \cdot N_3 \cdot N_5}{N_2 \cdot N_4 \cdot (N_1 - N_3)} = 5.93197$

$\frac{(B \cdot D)}{(E \cdot A \cdot (C - A))} = 5.93197$

$R_1 - \frac{N_1^{\,2} \cdot N_3 \cdot N_5}{N_2 \cdot N_4 \cdot (N_1 - N_3)} = 0.00000$

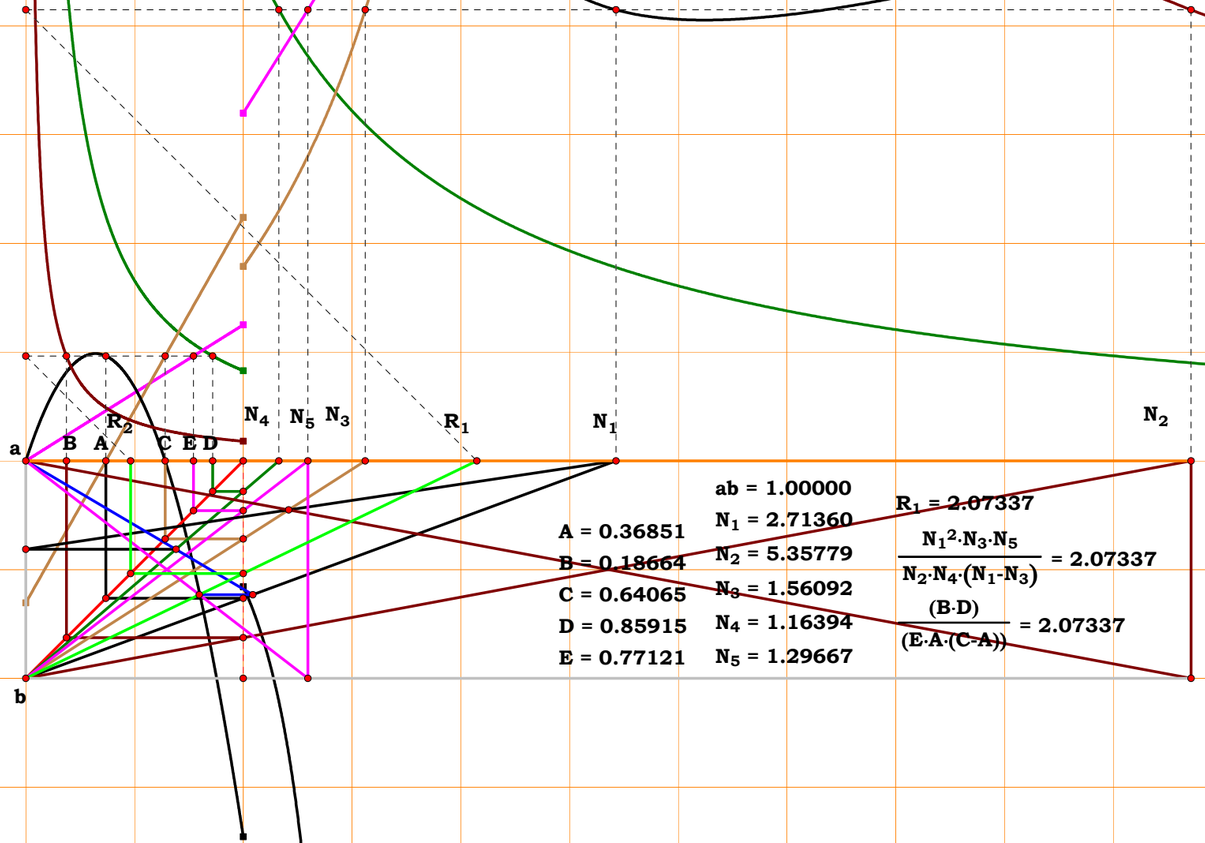
$R_1 - \frac{(B \cdot D)}{(E \cdot A \cdot (C - A))} = 0.00000$

$\frac{(B \cdot D)}{(E \cdot A \cdot (C - A))} - \frac{N_1^{\,2} \cdot N_3 \cdot N_5}{N_2 \cdot N_4 \cdot (N_1 - N_3)} = 0.00000$

$R_2 = 0.16858$

$\frac{(E \cdot A \cdot (C - A))}{(B \cdot D)} = 0.16858$

$R_2 - \frac{(E \cdot A \cdot (C - A))}{(B \cdot D)} = 0.00000$



$ab = 1.00000$

$A = 0.36851$ $N_1 = 2.71360$

$B = 0.18664$ $N_2 = 5.35779$

$C = 0.64065$ $N_3 = 1.56092$

$D = 0.85915$ $N_4 = 1.16394$

$E = 0.77121$ $N_5 = 1.29667$

$R_1 = 2.07337$

$$\frac{N_1^2 \cdot N_3 \cdot N_5}{N_2 \cdot N_4 \cdot (N_1 - N_3)} = 2.07337$$

$$\frac{(B \cdot D)}{(E \cdot A \cdot (C - A))} = 2.07337$$

$$R_1 - \frac{N_1^2 \cdot N_3 \cdot N_5}{N_2 \cdot N_4 \cdot (N_1 - N_3)} = 0.00000$$

$$R_1 - \frac{(B \cdot D)}{(E \cdot A \cdot (C - A))} = 0.00000$$

$$\frac{(B \cdot D)}{(E \cdot A \cdot (C - A))} - \frac{N_1^2 \cdot N_3 \cdot N_5}{N_2 \cdot N_4 \cdot (N_1 - N_3)} = 0.00000$$

$R_2 = 0.48231$

$$\frac{(E \cdot A \cdot (C - A))}{(B \cdot D)} = 0.48231$$

$$R_2 - \frac{(E \cdot A \cdot (C - A))}{(B \cdot D)} = 0.00000$$

1CST7R12

Given.

Unit. $ab := 1 \quad N_1 := 2.81836$

$N_2 := 3.90075 \quad N_3 := 1.99938$

$N_4 := 1.57843 \quad N_5 := 1.21882$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2} \quad C := \frac{1}{N_3} \quad D := \frac{1}{N_4} \quad E := \frac{1}{N_5}$

Descriptions.

$fg := \frac{N_2}{N_2 + N_3} \quad bg := fg \cdot N_3 \quad ac := \frac{N_1 \cdot (1 - fg)}{N_1 - bg}$

$be := N_4 \cdot (1 - ac) \quad bo := \frac{be}{ac} \quad hj := \frac{bo}{bo + N_1}$

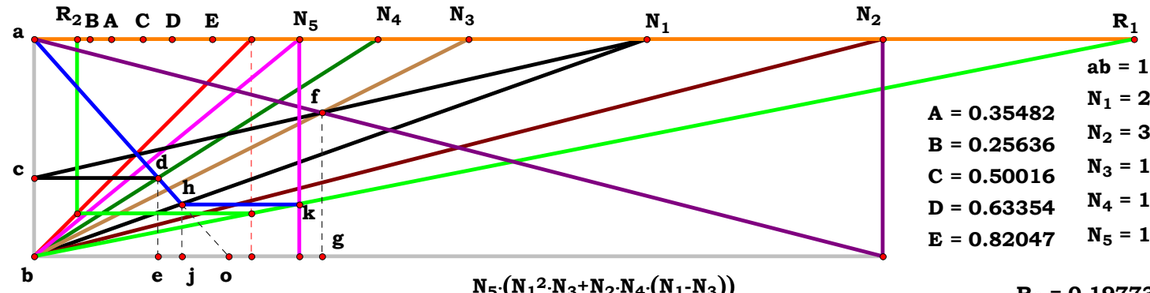
$R_1 := \frac{N_5}{hj} \quad R_1 = 5.057493$

Definitions.

$$R_1 - \frac{N_5 \cdot \left[N_1^{\,2} \cdot N_3 + N_2 \cdot N_4 \cdot (N_1 - N_3) \right]}{N_2 \cdot N_4 \cdot (N_1 - N_3)} = 0$$

$N_1 - \frac{1}{A} = 0 \quad N_2 - \frac{1}{B} = 0 \quad N_3 - \frac{1}{C} = 0 \quad N_4 - \frac{1}{D} = 0 \quad N_5 - \frac{1}{E} = 0$

$$R_1 - \frac{\left(A^2 - C \cdot A - B \cdot D\right)}{A \cdot E \cdot (A - C)} = 0$$



A = 0.35482
B = 0.25636
C = 0.50016
D = 0.63354
E = 0.82047

ab = 1.00000
N_1 = 2.81836
N_2 = 3.90075
N_3 = 1.99938
N_4 = 1.57843
N_5 = 1.21882

$R_1 = 5.05749$

$$\frac{N_5 \cdot (N_1^{\,2} \cdot N_3 + N_2 \cdot N_4 \cdot (N_1 - N_3))}{N_2 \cdot N_4 \cdot (N_1 - N_3)} = 5.05749$$

$$\frac{(A^2 - A \cdot C - B \cdot D)}{(A \cdot E \cdot (A - C))} = 5.05749$$

$$R_1 - \frac{N_5 \cdot (N_1^{\,2} \cdot N_3 + N_2 \cdot N_4 \cdot (N_1 - N_3))}{N_2 \cdot N_4 \cdot (N_1 - N_3)} = 0.00000$$

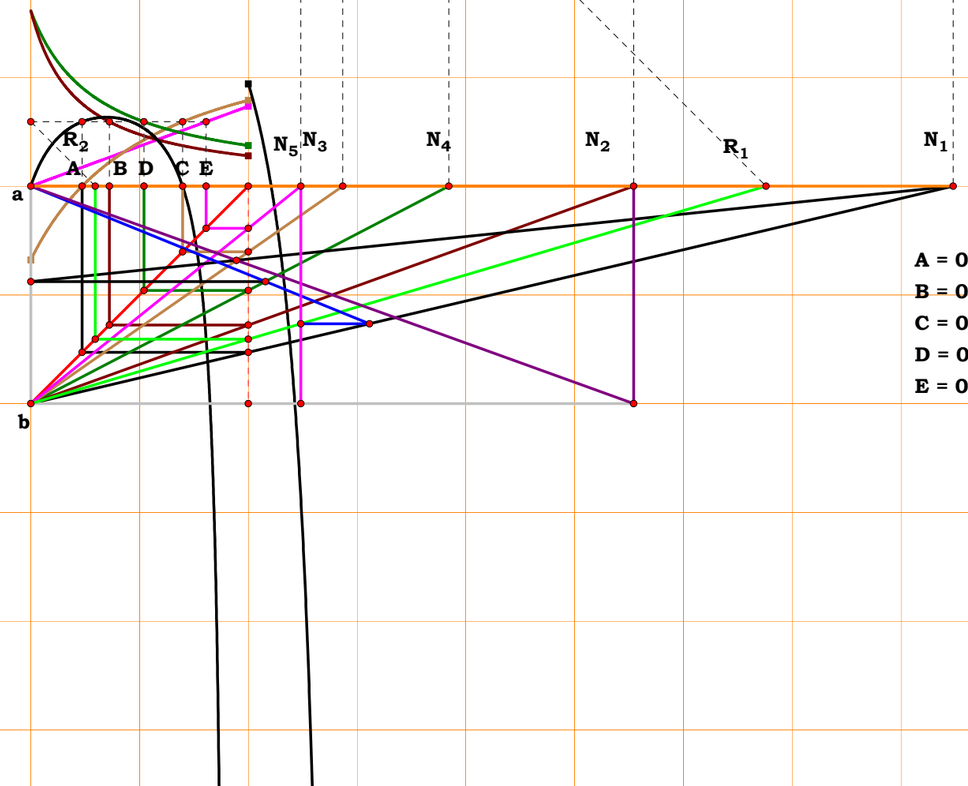
$$R_1 - \frac{(A^2 - A \cdot C - B \cdot D)}{(A \cdot E \cdot (A - C))} = 0.00000$$

$$\frac{(A^2 - A \cdot C - B \cdot D)}{(A \cdot E \cdot (A - C))} - \frac{N_5 \cdot (N_1^{\,2} \cdot N_3 + N_2 \cdot N_4 \cdot (N_1 - N_3))}{N_2 \cdot N_4 \cdot (N_1 - N_3)} = 0.00000$$

$R_2 = 0.19773$

$$\frac{(A \cdot E \cdot (A - C))}{(A^2 - A \cdot C - B \cdot D)} = 0.19773$$

$$R_2 - \frac{(A \cdot E \cdot (A - C))}{(A^2 - A \cdot C - B \cdot D)} = 0.00000$$



ab = 1.00000

N_1 = 4.24089

N_2 = 2.77113

N_3 = 1.43359

N_4 = 1.92187

N_5 = 1.24077

A = 0.23580

B = 0.36086

C = 0.69755

D = 0.52033

E = 0.80595

R_1 = 3.38051

$$\frac{N_5\cdot(N_1^2\cdot N_3+N_2\cdot N_4\cdot(N_1-N_3))}{N_2\cdot N_4\cdot(N_1-N_3)} = 3.38051$$

$$\frac{(A^2-A\cdot C-B\cdot D)}{(A\cdot E\cdot(A-C))} = 3.38051$$

R_2 = 0.29581

$$\frac{(A\cdot E\cdot(A-C))}{(A^2-A\cdot C-B\cdot D)} = 0.29581$$

$$R_2-\frac{(A\cdot E\cdot(A-C))}{(A^2-A\cdot C-B\cdot D)} = 0.00000$$

$$R_1-\frac{N_5\cdot(N_1^2\cdot N_3+N_2\cdot N_4\cdot(N_1-N_3))}{N_2\cdot N_4\cdot(N_1-N_3)} = 0.00000$$

$$R_1-\frac{(A^2-A\cdot C-B\cdot D)}{(A\cdot E\cdot(A-C))} = 0.00000$$

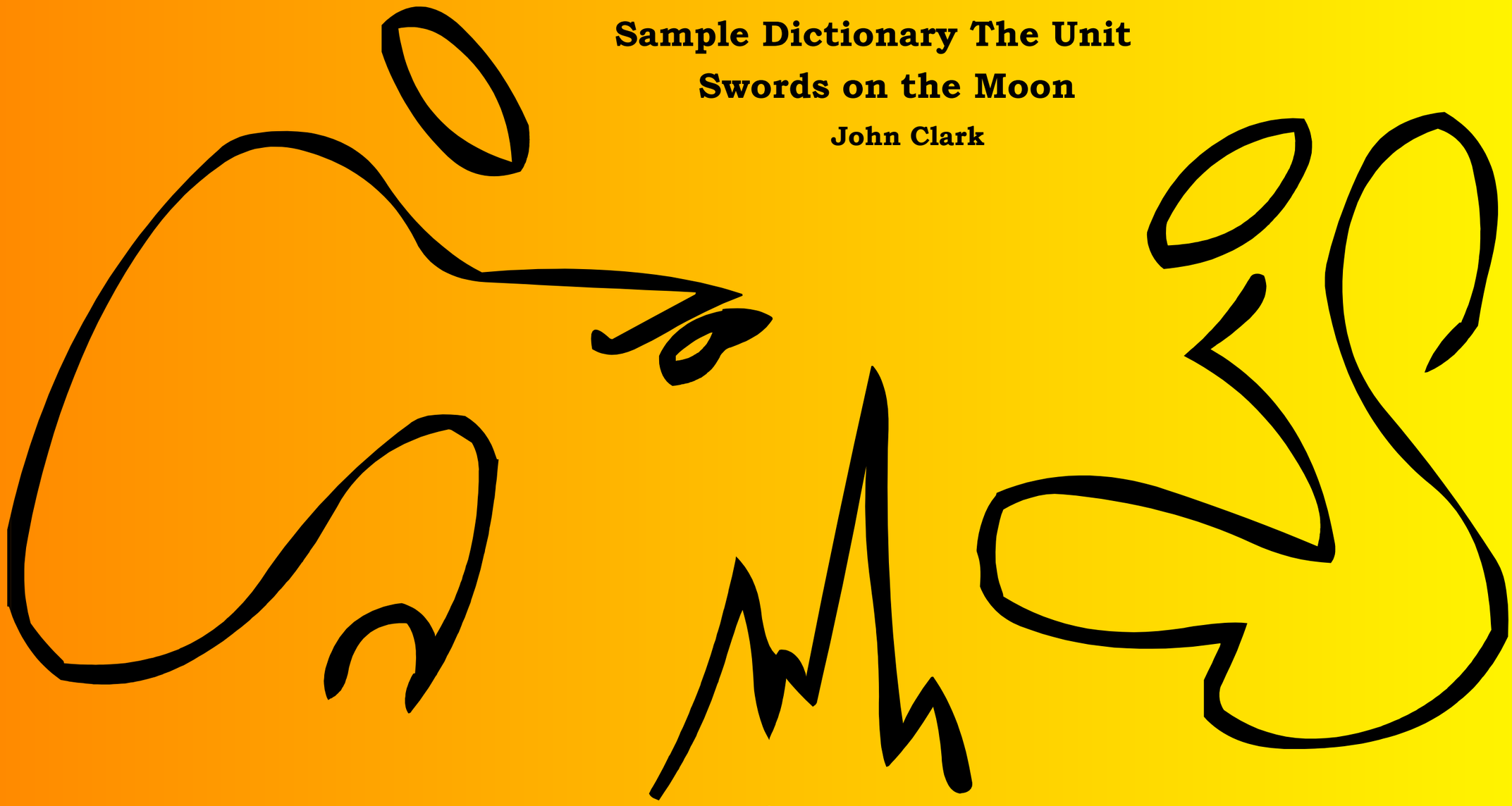
$$\frac{(A^2-A\cdot C-B\cdot D)}{(A\cdot E\cdot(A-C))}-\frac{N_5\cdot(N_1^2\cdot N_3+N_2\cdot N_4\cdot(N_1-N_3))}{N_2\cdot N_4\cdot(N_1-N_3)} = 0.00000$$

Basic Analog Grammar

Sample Dictionary The Unit

Swords on the Moon

John Clark



John 312

2SMT1R0

Given.

$N_1 := 1.37658$

Unit. $ab := 1$

$A := \frac{1}{N_1}$

Descriptions.

$bN_1 := \sqrt{1 + N_1^2}$ $bc := \frac{1}{bN_1}$

$cf := \frac{bc}{bN_1}$ $bg := \frac{bN_1 \cdot bc}{N_1}$

$dg := cf$ $bd := \sqrt{bg^2 + dg^2}$

$be := \frac{dg}{bd}$ $R_1 := \frac{bg \cdot be}{bd}$

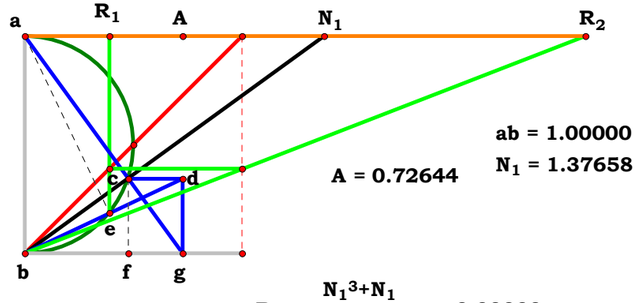
$R_1 = 0.387819$ $R_2 := \frac{1}{R_1}$

Definitions.

$R_1 - \frac{N_1^3 + N_1}{N_1^4 + 3 \cdot N_1^2 + 1} = 0$

$N_1 - \frac{1}{A} = 0$

$R_1 - \frac{A \cdot (A^2 + 1)}{A^4 + 3 \cdot A^2 + 1} = 0$ $R_2 - \frac{A^4 + 3 \cdot A^2 + 1}{A \cdot (A^2 + 1)} = 0$



ab = 1.00000

$N_1 = 1.37658$

A = 0.72644

$R_1 = 0.38782$

$\frac{N_1^3 + N_1}{N_1^4 + 3 \cdot N_1^2 + 1} = 0.38782$

$\frac{(A^3 + A)}{(A^4 + 3 \cdot A^2 + 1)} = 0.38782$

$R_1 - \frac{N_1^3 + N_1}{N_1^4 + 3 \cdot N_1^2 + 1} = 0.00000$

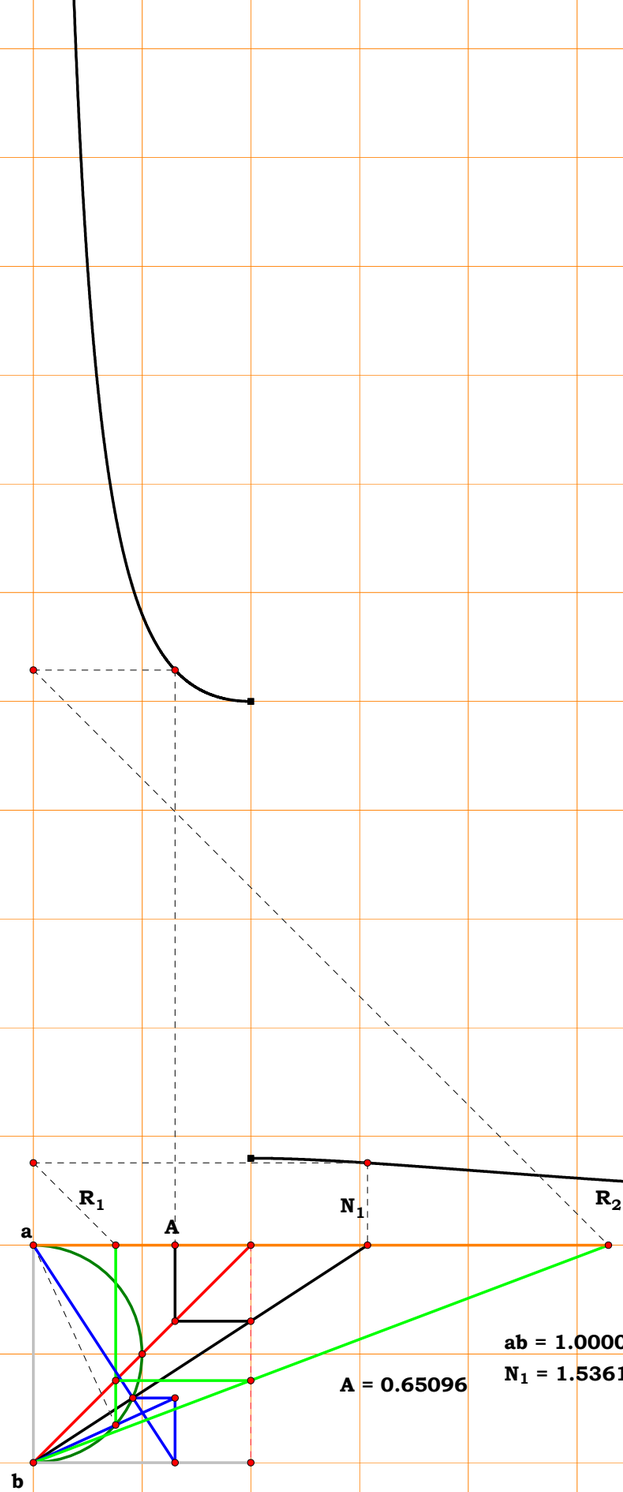
$R_1 - \frac{(A^3 + A)}{(A^4 + 3 \cdot A^2 + 1)} = 0.00000$

$\frac{(A^3 + A)}{(A^4 + 3 \cdot A^2 + 1)} - \frac{N_1^3 + N_1}{N_1^4 + 3 \cdot N_1^2 + 1} = 0.00000$

$R_2 = 2.57853$

$\frac{(A^4 + 3 \cdot A^2 + 1)}{(A^3 + A)} = 2.57853$

$R_2 - \frac{(A^4 + 3 \cdot A^2 + 1)}{(A^3 + A)} = 0.00000$



$A = 0.65096$

$ab = 1.00000$

$N_1 = 1.53619$

$R_1 = 0.37816$

$$\frac{N_1^3+N_1}{N_1^4+3\cdot N_1^2+1} = 0.37816$$

$$\frac{(A^3+A)}{(A^4+3\cdot A^2+1)} = 0.37816$$

$$R_1-\frac{N_1^3+N_1}{N_1^4+3\cdot N_1^2+1} = 0.00000$$

$$R_1-\frac{(A^3+A)}{(A^4+3\cdot A^2+1)} = 0.00000$$

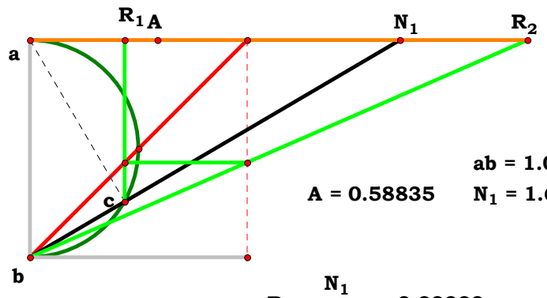
$$\frac{(A^3+A)}{(A^4+3\cdot A^2+1)}-\frac{N_1^3+N_1}{N_1^4+3\cdot N_1^2+1} = 0.00000$$

$R_2 = 2.64437$

$$\frac{(A^4+3\cdot A^2+1)}{(A^3+A)} = 2.64437$$

$$R_2-\frac{(A^4+3\cdot A^2+1)}{(A^3+A)} = 0.00000$$

2SMT1R1



ab = 1.00000

A = 0.58835 N_1 = 1.69966

R_1 = 0.43706

$\frac{N_1}{N_1^2+1}$ = 0.43706

$\frac{A}{A^2+1}$ = 0.43706

Given.

Unit. $ab := 1$

$N_1 := 1.69966$

$A := \frac{1}{N_1}$

Descriptions.

$bc := \frac{1}{\left(N_1^2+1\right)^{\frac{1}{2}}}$ $bn := \sqrt{N_1^2+1}$

$N_1 \cdot bc$

$R_1 := \frac{1}{bn}$ $R_1 = 0.43706$ $R_2 := \frac{1}{R_1}$

$R_1 - \frac{N_1}{N_1^2+1} = 0.00000$

$R_1 - \frac{A}{A^2+1} = 0.00000$

$\frac{A}{A^2+1} - \frac{N_1}{N_1^2+1} = 0.00000$

$R_2 = 2.28801$

$\frac{A^2+1}{A} = 2.28801$

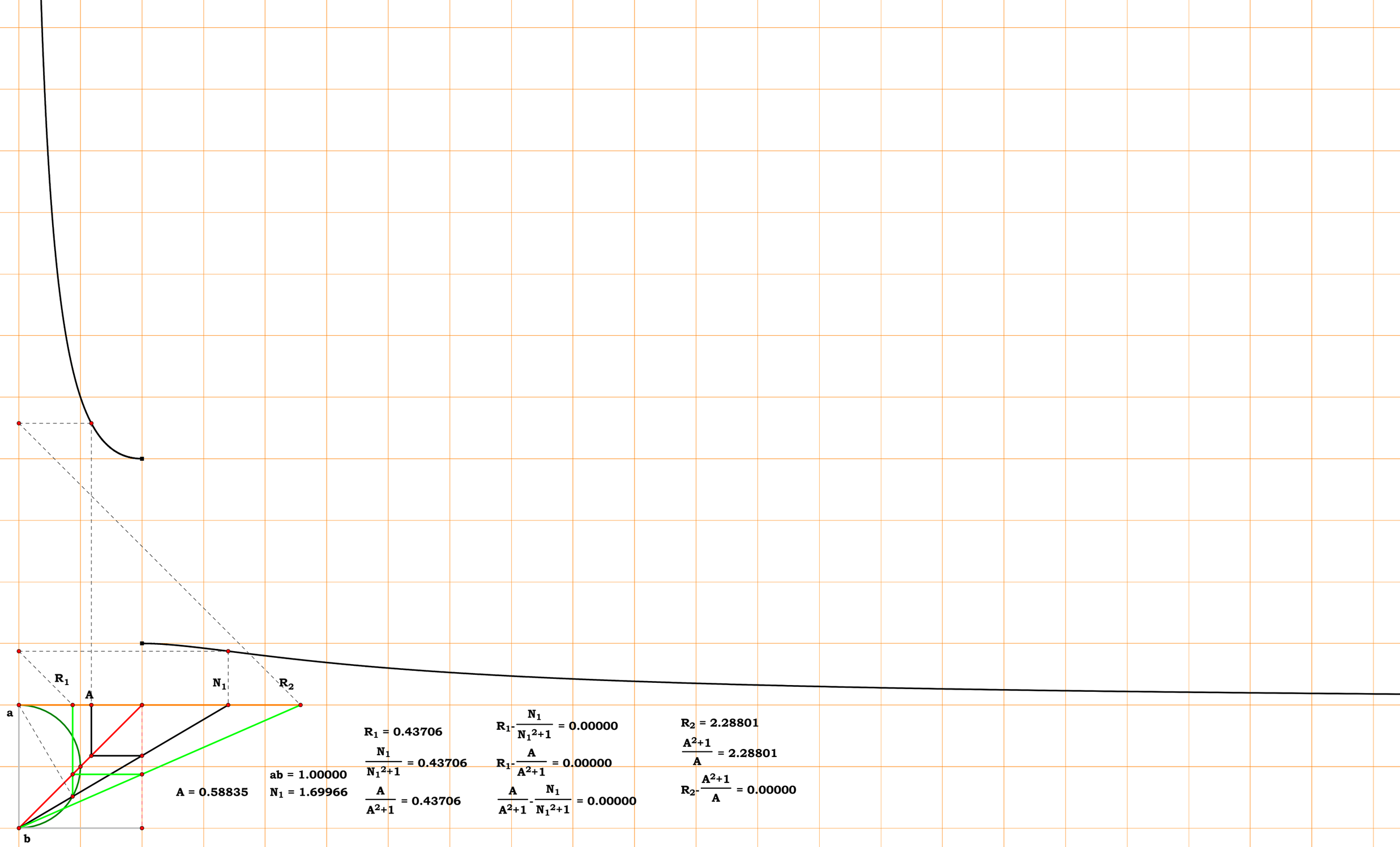
$R_2 - \frac{A^2+1}{A} = 0.00000$

Definitions.

$R_1 - \frac{N_1}{N_1^2+1} = 0$

$N_1 - \frac{1}{A} = 0$

$R_1 - \frac{A}{A^2+1} = 0$ $R_2 - \frac{A^2+1}{A} = 0$



$R_1 = 0.43706$

$\frac{N_1}{N_1^2+1} = 0.43706$

$\frac{A}{A^2+1} = 0.43706$

$R_1 - \frac{N_1}{N_1^2+1} = 0.00000$

$R_1 - \frac{A}{A^2+1} = 0.00000$

$\frac{A}{A^2+1} - \frac{N_1}{N_1^2+1} = 0.00000$

$R_2 = 2.28801$

$\frac{A^2+1}{A} = 2.28801$

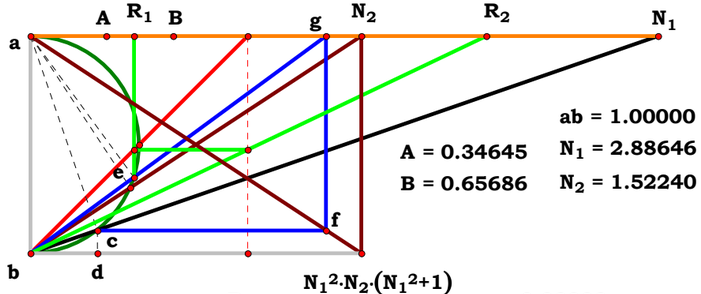
$R_2 - \frac{A^2+1}{A} = 0.00000$

$ab = 1.00000$

$A = 0.58835$

$N_1 = 1.69966$

2SMT1R2



ab = 1.00000
A = 0.34645 N1 = 2.88646
B = 0.65686 N2 = 1.52240

$R_1 = 0.47734$

$$\frac{N_1^2 \cdot N_2 \cdot (N_1^2+1)}{N_1^4 \cdot N_2^2+N_1^4+2 \cdot N_1^2+1} = 0.47734$$

$$\frac{(B \cdot (A^2+1))}{(A^4 \cdot B^2+2 \cdot A^2 \cdot B^2+B^2+1)} = 0.47734$$

$$R_1 - \frac{N_1^2 \cdot N_2 \cdot (N_1^2+1)}{N_1^4 \cdot N_2^2+N_1^4+2 \cdot N_1^2+1} = 0.00000$$

$$R_1 - \frac{(B \cdot (A^2+1))}{(A^4 \cdot B^2+2 \cdot A^2 \cdot B^2+B^2+1)} = 0.00000$$

$$\frac{(B \cdot (A^2+1))}{(A^4 \cdot B^2+2 \cdot A^2 \cdot B^2+B^2+1)} - \frac{N_1^2 \cdot N_2 \cdot (N_1^2+1)}{N_1^4 \cdot N_2^2+N_1^4+2 \cdot N_1^2+1} = 0.00000$$

$R_2 = 2.09495$

$$\frac{(A^4 \cdot B^2+2 \cdot A^2 \cdot B^2+B^2+1)}{(B \cdot (A^2+1))} = 2.09495$$

$$R_2 - \frac{(A^4 \cdot B^2+2 \cdot A^2 \cdot B^2+B^2+1)}{(B \cdot (A^2+1))} = 0.00000$$

Given.

Unit. $ab := 1$

$N_1 := 2.88646 \quad N_2 := 1.52240$

$$A := \frac{1}{N_1} \quad B := \frac{1}{N_2}$$

Descriptions.

$$bN_1 := \sqrt{N_1^2 + 1} \quad bc := \frac{1}{bN_1} \quad cd := \frac{bc}{bN_1}$$

$$ag := N_2 \cdot (1 - cd) \quad bg := \sqrt{ag^2 + 1}$$

$$be := \frac{1}{bg} \quad R_1 := \frac{ag \cdot be}{bg}$$

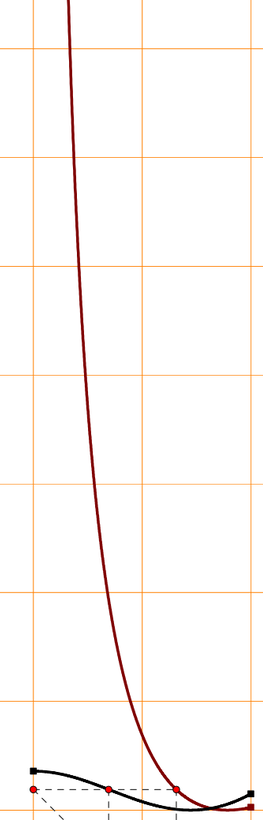
$R_1 = 0.477338 \quad R_2 := \frac{1}{R_1}$

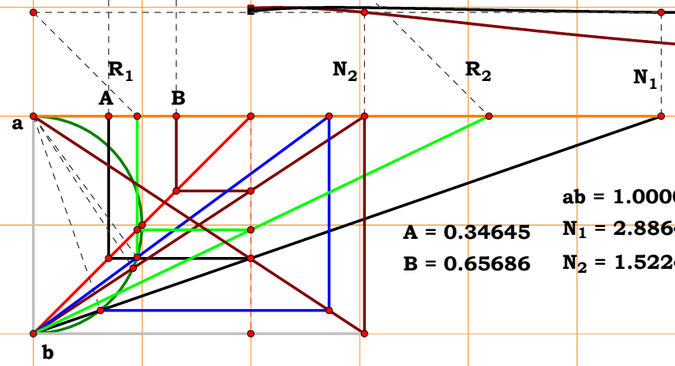
Definitions.

$$R_1 - \frac{N_1^2 \cdot N_2 \cdot \left(N_1^2 + 1\right)}{N_1^4 \cdot N_2^2 + N_1^4 + 2 \cdot N_1^2 + 1} = 0$$

$$N_1 - \frac{1}{A} = 0 \quad N_2 - \frac{1}{B} = 0$$

$$R_1 - \frac{B \cdot \left(A^2 + 1\right)}{A^4 \cdot B^2 + 2 \cdot A^2 \cdot B^2 + B^2 + 1} = 0 \quad R_2 - \frac{A^4 \cdot B^2 + 2 \cdot A^2 \cdot B^2 + B^2 + 1}{B \cdot \left(A^2 + 1\right)} = 0$$





$A = 0.34645$ $B = 0.65686$

$ab = 1.00000$ $N_1 = 2.88646$ $N_2 = 1.52240$

$R_1 = 0.47734$

$$\frac{N_1^2 \cdot N_2 \cdot (N_1^2+1)}{N_1^4 \cdot N_2^2+N_1^4+2 \cdot N_1^2+1} = 0.47734$$

$$\frac{(B \cdot (A^2+1))}{(A^4 \cdot B^2+2 \cdot A^2 \cdot B^2+B^2+1)} = 0.47734$$

$$R_1 - \frac{N_1^2 \cdot N_2 \cdot (N_1^2+1)}{N_1^4 \cdot N_2^2+N_1^4+2 \cdot N_1^2+1} = 0.00000$$

$$R_1 - \frac{(B \cdot (A^2+1))}{(A^4 \cdot B^2+2 \cdot A^2 \cdot B^2+B^2+1)} = 0.00000$$

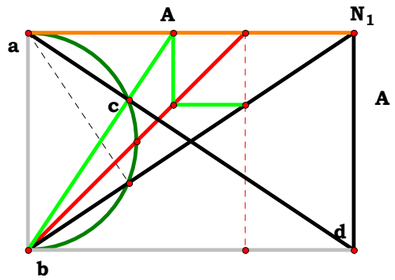
$$\frac{(B \cdot (A^2+1))}{(A^4 \cdot B^2+2 \cdot A^2 \cdot B^2+B^2+1)} - \frac{N_1^2 \cdot N_2 \cdot (N_1^2+1)}{N_1^4 \cdot N_2^2+N_1^4+2 \cdot N_1^2+1} = 0.00000$$

$R_2 = 2.09495$

$$\frac{(A^4 \cdot B^2+2 \cdot A^2 \cdot B^2+B^2+1)}{(B \cdot (A^2+1))} = 2.09495$$

$$R_2 - \frac{(A^4 \cdot B^2+2 \cdot A^2 \cdot B^2+B^2+1)}{(B \cdot (A^2+1))} = 0.00000$$

2SMT1R3



A = 0.66847 ab = 1.00000 R_1 = 0.66847

N_1 = 1.49594 $\frac{1}{N_1}$ = 0.66847

A = 0.66847

Given.

Unit. ab := 1

$N_1 := 1.49594$

$A := \frac{1}{N_1}$

Descriptions.

$ac := \frac{1}{\left(N_1^2 + 1\right)^{\frac{1}{2}}}$ $ad := \sqrt{N_1^2 + 1}$

$R_1 := \frac{ad \cdot ac}{N_1}$ $R_1 = 0.668476$ $R_2 := \frac{1}{R_1}$

$R_1 - \frac{1}{N_1} = 0.00000$ $R_2 = 1.49594$

$R_1 - A = 0.00000$ $\frac{1}{A} = 1.49594$

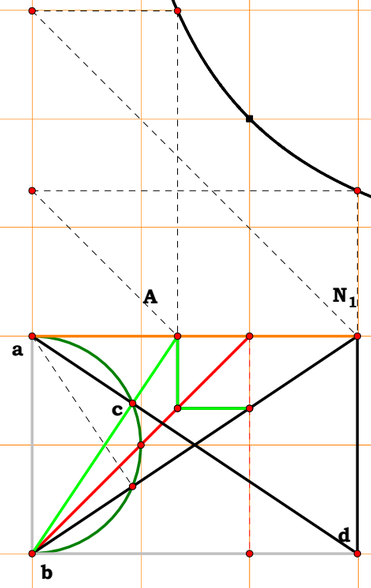
$A - \frac{1}{N_1} = 0.00000$ $R_2 - \frac{1}{A} = 0.00000$

Definitions.

$R_1 - \frac{1}{N_1} = 0$

$N_1 - \frac{1}{A} = 0$

$R_1 - A = 0$ $R_2 - \frac{1}{A} = 0$



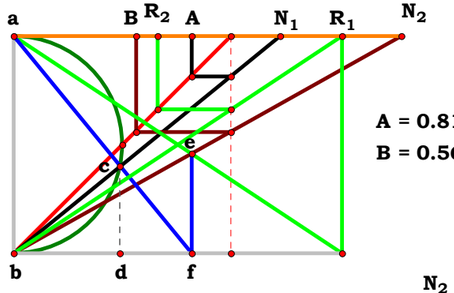
A = 0.66847 ab = 1.00000
N1 = 1.49594

R1 = 0.66847
1/N1 = 0.66847
A = 0.66847

R1-1/N1 = 0.00000
R1-A = 0.00000
A-1/N1 = 0.00000

R2 = 1.49594
1/A = 1.49594
R2-1/A = 0.00000

2SMT1R4



ab = 1.00000
A = 0.81704 N_1 = 1.22394
B = 0.56146 N_2 = 1.78106

$R_1 = 1.50950$

$\frac{N_2}{N_1 \cdot N_2 - 1} = 1.50950$

$\frac{A}{1-A \cdot B} = 1.50950$

Given.

Unit. $ab := 1$

$N_1 := 1.22394 \quad N_2 := 1.78106$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2}$

Descriptions.

$bf := \frac{1}{N_1} \quad ef := \frac{bf}{N_2} \quad R_1 := \frac{bf}{1 - ef}$

$R_1 = 1.509487 \quad R_2 := \frac{1}{R_1}$

Definitions.

$R_1 - \frac{N_2}{N_1 \cdot N_2 - 1} = 0$

$N_1 - \frac{1}{A} = 0 \quad N_2 - \frac{1}{B} = 0$

$R_1 - \frac{A}{1 - A \cdot B} = 0 \quad R_2 - \frac{1 - A \cdot B}{A} = 0$

$R_1 - \frac{N_2}{N_1 \cdot N_2 - 1} = 0.00000$

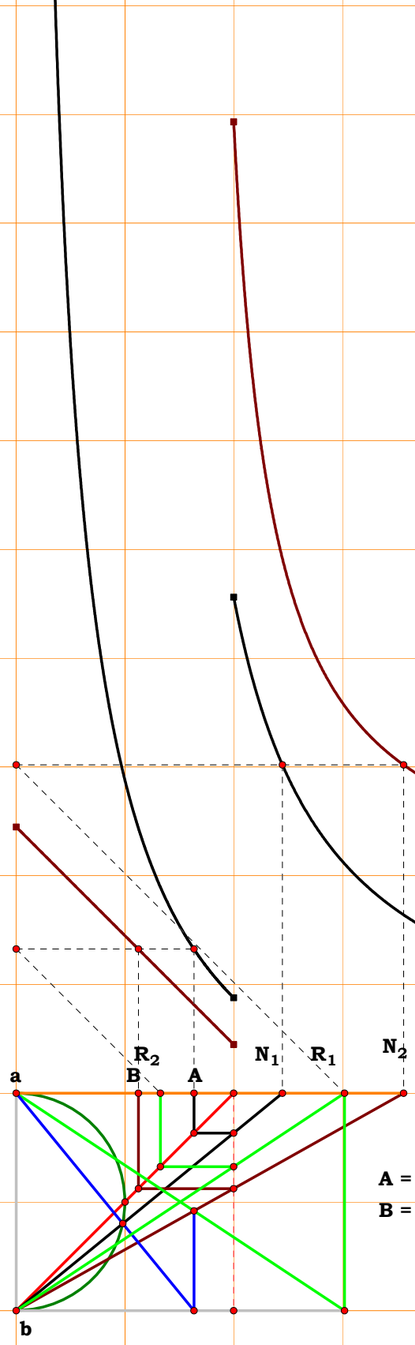
$R_1 - \frac{A}{1-A \cdot B} = 0.00000$

$\frac{A}{1-A \cdot B} - \frac{N_2}{N_1 \cdot N_2 - 1} = 0.00000$

$R_2 = 0.66247$

$\frac{1-A \cdot B}{A} = 0.66247$

$R_2 - \frac{1-A \cdot B}{A} = 0.00000$



$A = 0.81704$ $B = 0.56146$

$ab = 1.00000$ $N_1 = 1.22394$ $N_2 = 1.78106$

$R_1 = 1.50950$

$\frac{N_2}{N_1 \cdot N_2 - 1} = 1.50950$

$\frac{A}{1-A \cdot B} = 1.50950$

$R_1 - \frac{N_2}{N_1 \cdot N_2 - 1} = 0.00000$

$R_1 - \frac{A}{1-A \cdot B} = 0.00000$

$\frac{A}{1-A \cdot B} - \frac{N_2}{N_1 \cdot N_2 - 1} = 0.00000$

$R_2 = 0.66247$

$\frac{1-A \cdot B}{A} = 0.66247$

$R_2 - \frac{1-A \cdot B}{A} = 0.00000$

2SMT1R5

Given.

Unit. $ab := 1$

$N_1 := 1.78384 \quad N_2 := 3.01223$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2}$

Descriptions.

$bN_1 := \sqrt{N_1^2 + 1} \quad cN_1 := \frac{N_1^2}{bN_1}$

$dR_1 := \frac{cN_1}{bN_1} \quad R_1 := N_2 \cdot dR_1$

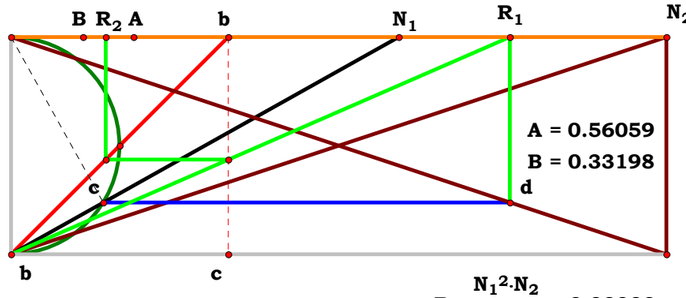
$R_1 = 2.29196 \quad R_2 := \frac{1}{R_1}$

Definitions.

$R_1 - \frac{N_1^2 \cdot N_2}{N_1^2 + 1} = 0$

$N_1 - \frac{1}{A} = 0 \quad N_2 - \frac{1}{B} = 0$

$R_1 - \frac{1}{B \cdot (A^2 + 1)} = 0 \quad R_2 - B \cdot (A^2 + 1) = 0$



ab = 1.00000
A = 0.56059
B = 0.33198
N_1 = 1.78384
N_2 = 3.01223

$R_1 - \frac{N_1^2 \cdot N_2}{N_1^2+1} = 0.00000$

$R_1 - \frac{1}{(B \cdot (A^2+1))} = 0.00000$

$\frac{1}{(B \cdot (A^2+1))} - \frac{N_1^2 \cdot N_2}{N_1^2+1} = 0.00000$

$R_1 = 2.29196$

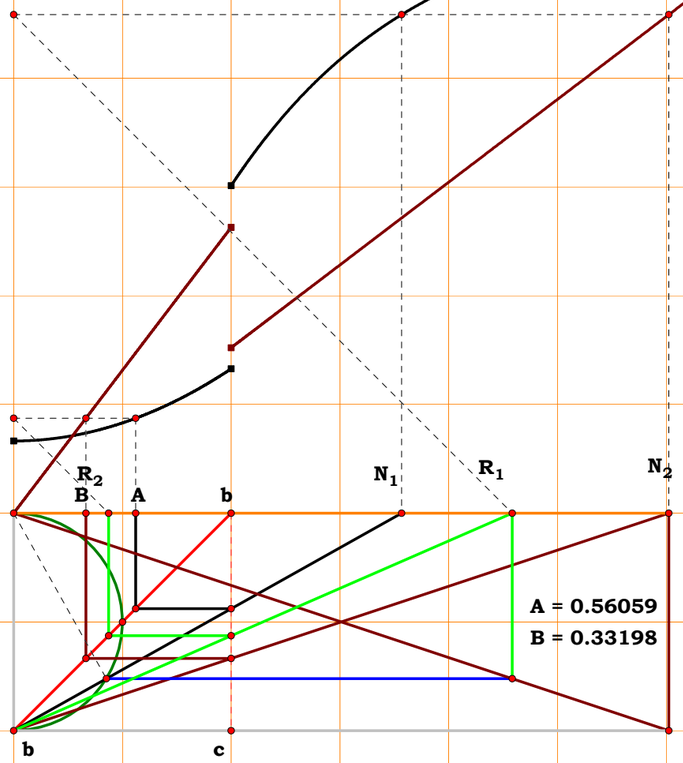
$\frac{N_1^2 \cdot N_2}{N_1^2+1} = 2.29196$

$\frac{1}{(B \cdot (A^2+1))} = 2.29196$

$R_2 = 0.43631$

$B \cdot (A^2+1) = 0.43631$

$R_2 - (B \cdot (A^2+1)) = 0.00000$



$ab = 1.00000$

$N_1 = 1.78384$

$N_2 = 3.01223$

$R_1 = 2.29196$

$\frac{N_1^2 \cdot N_2}{N_1^2+1} = 2.29196$

$\frac{1}{(B \cdot (A^2+1))} = 2.29196$

$R_1 - \frac{N_1^2 \cdot N_2}{N_1^2+1} = 0.00000$

$R_1 - \frac{1}{(B \cdot (A^2+1))} = 0.00000$

$\frac{1}{(B \cdot (A^2+1))} - \frac{N_1^2 \cdot N_2}{N_1^2+1} = 0.00000$

$R_2 = 0.43631$

$B \cdot (A^2+1) = 0.43631$

$R_2 - (B \cdot (A^2+1)) = 0.00000$

2SMT1R6

Given.

Unit. $ab := 1$

$N_1 := 1.60516$

$A := \frac{1}{N_1}$

Descriptions.

$df := \frac{1}{1 + N_1^2}$ $ce := df$ $be := \frac{1}{N_1}$

$R_1 := \frac{be}{ce}$ $R_2 := \frac{1}{R_1}$

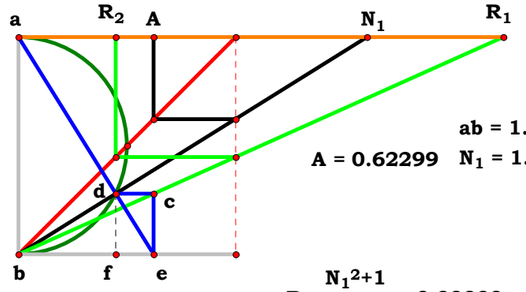
$R_1 = 2.228151$

Definitions.

$R_1 - \frac{N_1^2 + 1}{N_1} = 0$

$N_1 - \frac{1}{A} = 0$

$R_1 - \frac{A^2 + 1}{A} = 0$ $R_2 - \frac{A}{A^2 + 1} = 0$



$ab = 1.00000$

$A = 0.62299$ $N_1 = 1.60516$

$R_1 = 2.22815$

$\frac{N_1^2+1}{N_1} = 2.22815$

$\frac{(A^2+1)}{A} = 2.22815$

$R_1 - \frac{N_1^2+1}{N_1} = 0.00000$

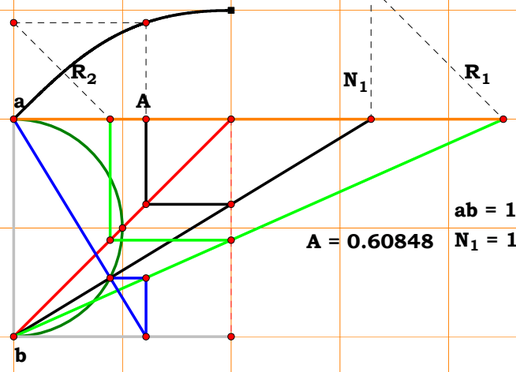
$R_1 - \frac{(A^2+1)}{A} = 0.00000$

$\frac{(A^2+1)}{A} - \frac{N_1^2+1}{N_1} = 0.00000$

$R_2 = 0.44880$

$\frac{A}{(A^2+1)} = 0.44880$

$R_2 - \frac{A}{(A^2+1)} = 0.00000$



$A = 0.60848$

$ab = 1.00000$

$N_1 = 1.64345$

$R_1 = 2.25192$

$\frac{N_1^2+1}{N_1} = 2.25192$

$\frac{(A^2+1)}{A} = 2.25192$

$R_1 - \frac{N_1^2+1}{N_1} = 0.00000$

$R_1 - \frac{(A^2+1)}{A} = 0.00000$

$\frac{(A^2+1)}{A} - \frac{N_1^2+1}{N_1} = 0.00000$

$R_2 = 0.44406$

$\frac{A}{(A^2+1)} = 0.44406$

$R_2 - \frac{A}{(A^2+1)} = 0.00000$

2SMT1R7

Given.

Unit. $ab := 1$

$N_1 := 1.46605 \quad N_2 := 3.84139$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2}$

Descriptions.

$bd := \frac{1}{N_1} \quad de := \frac{bd}{N_2}$

$bf := \frac{bd}{(1 - de)} \quad bN_1 := \sqrt{N_1^{\,2} + 1}$

$bc := \frac{1}{bN_1} \quad fg := \frac{bc}{bN_1} \quad R_1 := \frac{bf}{fg}$

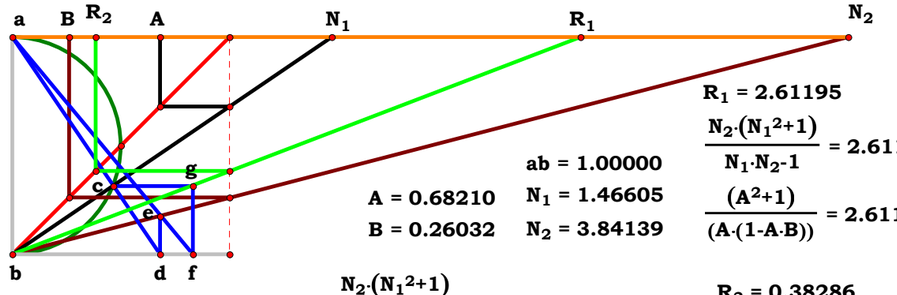
$R_1 = 2.611952 \quad R_2 := \frac{1}{R_1}$

Definitions.

$R_1 - \frac{N_2 \cdot \left(N_1^{\,2} + 1\right)}{N_1 \cdot N_2 - 1} = 0$

$N_1 - \frac{1}{A} = 0 \quad N_2 - \frac{1}{B} = 0$

$R_1 - \frac{\left(A^2 + 1\right)}{A \cdot (1 - A \cdot B)} = 0 \quad R_2 - \frac{A}{B} = -2.237376$



ab = 1.00000

A = 0.68210 N_1 = 1.46605

B = 0.26032 N_2 = 3.84139

$R_1 - \frac{N_2 \cdot (N_1^2+1)}{N_1 \cdot N_2 - 1} = 0.00000$

$R_1 - \frac{(A^2+1)}{(A \cdot (1-A \cdot B))} = 0.00000$

$\frac{(A^2+1)}{(A \cdot (1-A \cdot B))} - \frac{N_2 \cdot (N_1^2+1)}{N_1 \cdot N_2 - 1} = 0.00000$

$R_1 = 2.61195$

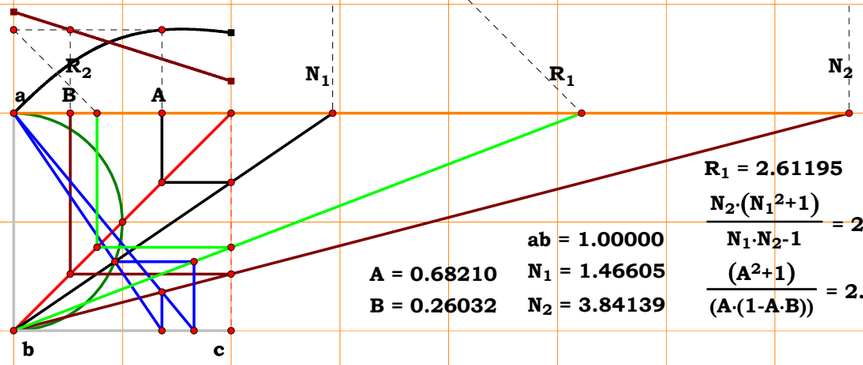
$\frac{N_2 \cdot (N_1^2+1)}{N_1 \cdot N_2 - 1} = 2.61195$

$\frac{(A^2+1)}{(A \cdot (1-A \cdot B))} = 2.61195$

$R_2 = 0.38286$

$\frac{(A \cdot (1-A \cdot B))}{(A^2+1)} = 0.38286$

$R_2 - \frac{(A \cdot (1-A \cdot B))}{(A^2+1)} = 0.00000$



$ab = 1.00000$

$A = 0.68210$

$B = 0.26032$

$N_1 = 1.46605$

$N_2 = 3.84139$

$R_1 = 2.61195$

$$\frac{N_2\cdot(N_1^2+1)}{N_1\cdot N_2-1} = 2.61195$$

$$\frac{(A^2+1)}{(A\cdot(1-A\cdot B))} = 2.61195$$

$$R_1-\frac{N_2\cdot(N_1^2+1)}{N_1\cdot N_2-1} = 0.00000$$

$$R_1-\frac{(A^2+1)}{(A\cdot(1-A\cdot B))} = 0.00000$$

$$\frac{(A^2+1)}{(A\cdot(1-A\cdot B))}-\frac{N_2\cdot(N_1^2+1)}{N_1\cdot N_2-1} = 0.00000$$

$R_2 = 0.38286$

$$\frac{(A\cdot(1-A\cdot B))}{(A^2+1)} = 0.38286$$

$$R_2-\frac{(A\cdot(1-A\cdot B))}{(A^2+1)} = 0.00000$$

2SMT1R8

Given.

Unit. $ab := 1$

$N_1 := 1.70175 \quad N_2 := 1.21811$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2}$

Descriptions.

$bN_1 := \sqrt{N_1^{\,2} + 1} \quad bd := \frac{1}{bN_1}$

$bc := \frac{bd}{bN_1} \quad ac := 1 - bc$

$bf := N_2 \cdot ac \quad R_1 := \frac{bf}{bc}$

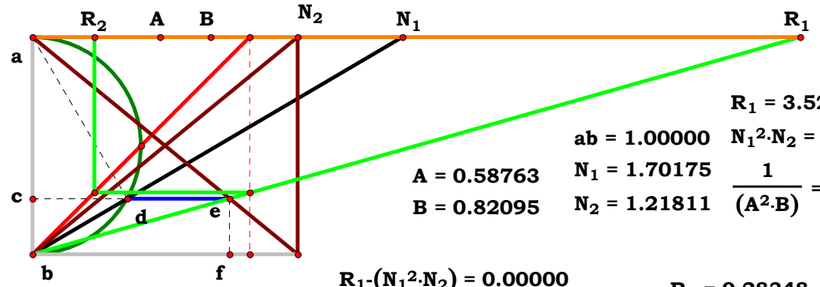
$R_1 = 3.527589 \quad R_2 := \frac{1}{R_1}$

Definitions.

$R_1 - N_1^{\,2} \cdot N_2 = 0$

$N_1 - \frac{1}{A} = 0 \quad N_2 - \frac{1}{B} = 0$

$R_1 - \frac{1}{A^2 \cdot B} = 0 \quad R_2 - A^2 \cdot B = 0$



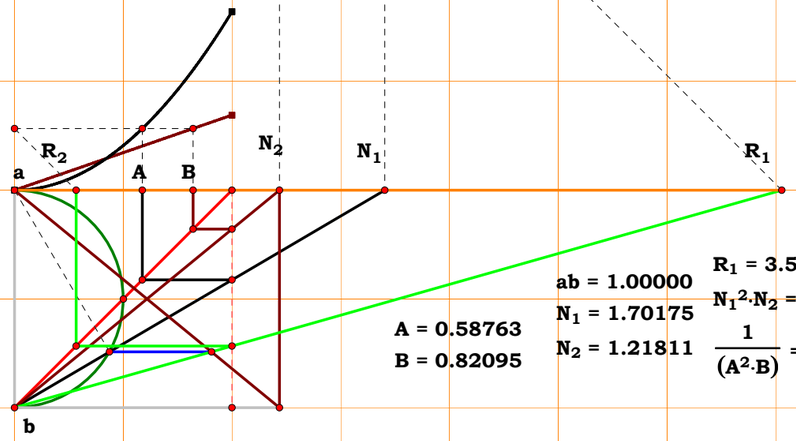
$A = 0.58763$
$B = 0.82095$

$ab = 1.00000$
$N_1 = 1.70175$
$N_2 = 1.21811$

$R_1 = 3.52756$
$N_1^{\,2} \cdot N_2 = 3.52756$
$\frac{1}{(A^2 \cdot B)} = 3.52756$

$R_1 - (N_1^{\,2} \cdot N_2) = 0.00000$
$R_1 - (N_1^{\,2} \cdot N_2) = 0.00000$
$\frac{1}{(A^2 \cdot B)} - (N_1^{\,2} \cdot N_2) = 0.00000$

$R_2 = 0.28348$
$A^2 \cdot B = 0.28348$
$R_2 - (A^2 \cdot B) = 0.00000$



A = 0.58763
B = 0.82095

ab = 1.00000
N_1 = 1.70175
N_2 = 1.21811

R_1 = 3.52756
$N_1^2 \cdot N_2$ = 3.52756
$\frac{1}{(A^2 \cdot B)}$ = 3.52756

$R_1-(N_1^2 \cdot N_2)$ = 0.00000
$R_1-(N_1^2 \cdot N_2)$ = 0.00000
$\frac{1}{(A^2 \cdot B)}-(N_1^2 \cdot N_2)$ = 0.00000

R_2 = 0.28348
$A^2 \cdot B$ = 0.28348
$R_2-(A^2 \cdot B)$ = 0.00000

2SMT1R9

Given.

Unit. $ab := 1$

$N_1 := 1.53045 \quad N_2 := 1.18931$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2}$

Descriptions.

$bN_1 := \sqrt{N_1^{\,2} + 1} \quad bc := \frac{1}{bN_1}$

$de := \frac{bc}{bN_1} \quad R_1 := \frac{N_2}{de}$

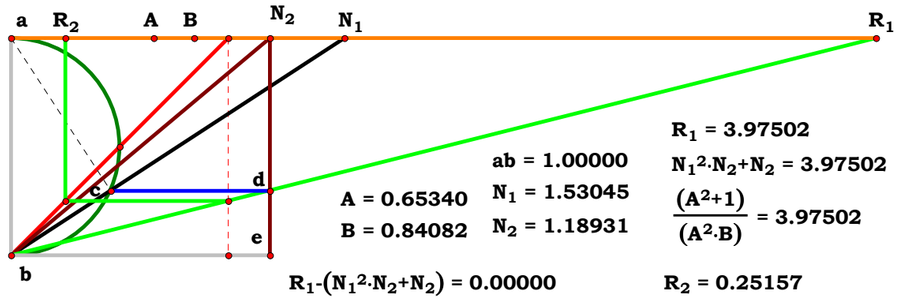
$R_1 = 3.975004 \quad R_2 := \frac{1}{R_1}$

Definitions.

$R_1 - N_2 \cdot \left(N_1^{\,2} + 1\right) = 0$

$N_1 - \frac{1}{A} = 0 \quad N_2 - \frac{1}{B} = 0$

$R_1 - \frac{\left(A^2 + 1\right)}{A^2 \cdot B} = 0 \quad R_2 - \frac{A^2 \cdot B}{\left(A^2 + 1\right)} = 0$



ab = 1.00000

A = 0.65340 N_1 = 1.53045

B = 0.84082 N_2 = 1.18931

$R_1 = 3.97502$

$N_1^2 \cdot N_2 + N_2 = 3.97502$

$\frac{(A^2+1)}{(A^2 \cdot B)} = 3.97502$

$R_1 - (N_1^2 \cdot N_2 + N_2) = 0.00000$

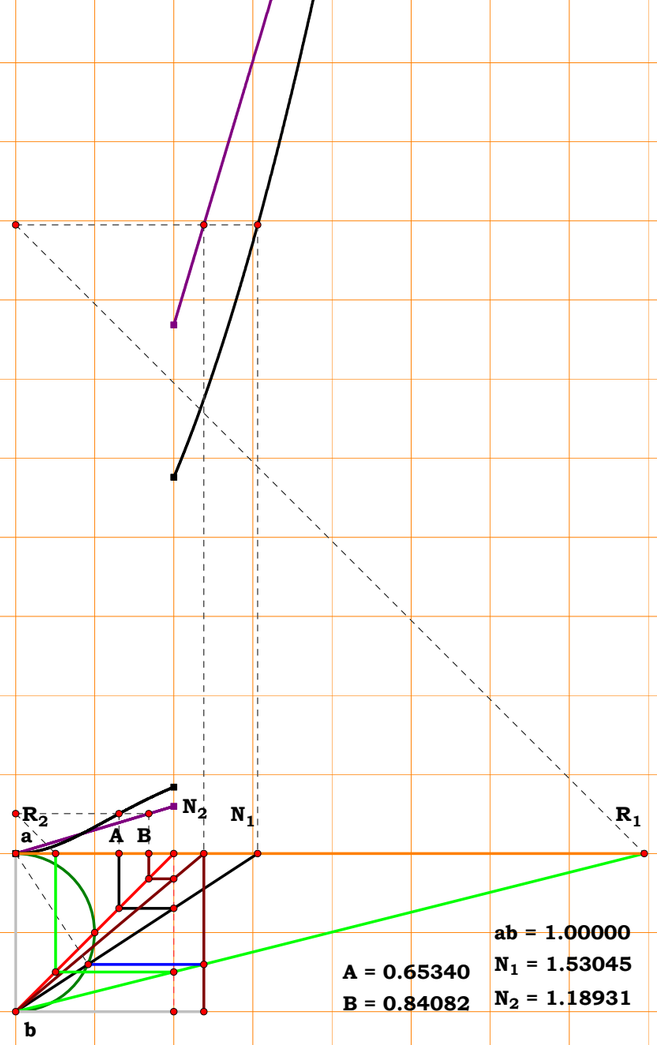
$R_1 - \frac{(A^2+1)}{(A^2 \cdot B)} = 0.00000$

$\frac{(A^2+1)}{(A^2 \cdot B)} - (N_1^2 \cdot N_2 + N_2) = 0.00000$

$R_2 = 0.25157$

$\frac{(A^2 \cdot B)}{(A^2+1)} = 0.25157$

$R_2 - \frac{(A^2 \cdot B)}{(A^2+1)} = 0.00000$



$A = 0.65340$

$B = 0.84082$

$ab = 1.00000$

$N_1 = 1.53045$

$N_2 = 1.18931$

$R_1 = 3.97502$

$N_1^2 \cdot N_2 + N_2 = 3.97502$

$\frac{(A^2+1)}{(A^2 \cdot B)} = 3.97502$

$R_1 - (N_1^2 \cdot N_2 + N_2) = 0.00000$

$R_1 - \frac{(A^2+1)}{(A^2 \cdot B)} = 0.00000$

$\frac{(A^2+1)}{(A^2 \cdot B)} - (N_1^2 \cdot N_2 + N_2) = 0.00000$

$R_2 = 0.25157$

$\frac{(A^2 \cdot B)}{(A^2+1)} = 0.25157$

$R_2 - \frac{(A^2 \cdot B)}{(A^2+1)} = 0.00000$

2SMT1R10

Given.

Unit. $ab := 1$

$N_1 := 2.28196$

$A := \frac{1}{N_1}$

Descriptions.

$A := \frac{1}{N_1}$ $bf := \frac{1}{2}$ $ce := A$

$ef := \sqrt{bf^2 - ce^2}$

$bd := \frac{1}{2} + ef$ $R_1 := \frac{A}{bd}$

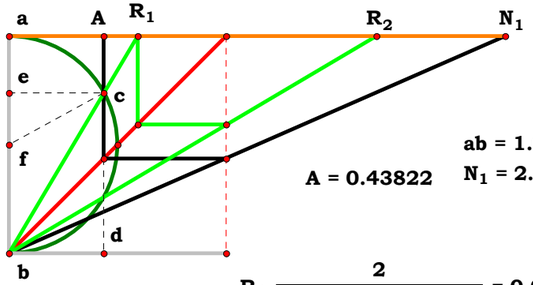
$R_1 = 0.591585$ $R_2 := \frac{1}{R_1}$

Definitions.

$R_1 - \frac{2}{N_1 + \sqrt{(N_1 - 2)\cdot(N_1 + 2)}} = 0$

$N_1 - \frac{1}{A} = 0$

$R_1 - \frac{2\cdot A}{\sqrt{1 - 4\cdot A^2} + 1} = 0$



$A = 0.43822$ $ab = 1.00000$ $N_1 = 2.28196$

$R_1 = 0.59159$

$\frac{2}{N_1 + \sqrt{(N_1 - 2)\cdot(N_1 + 2)}} = 0.59159$

$\frac{(2\cdot A)}{\left(\sqrt{1 - 4\cdot A^2} + 1\right)} = 0.59159$

$R_1 - \frac{2}{N_1 + \sqrt{(N_1 - 2)\cdot(N_1 + 2)}} = 0.00000$

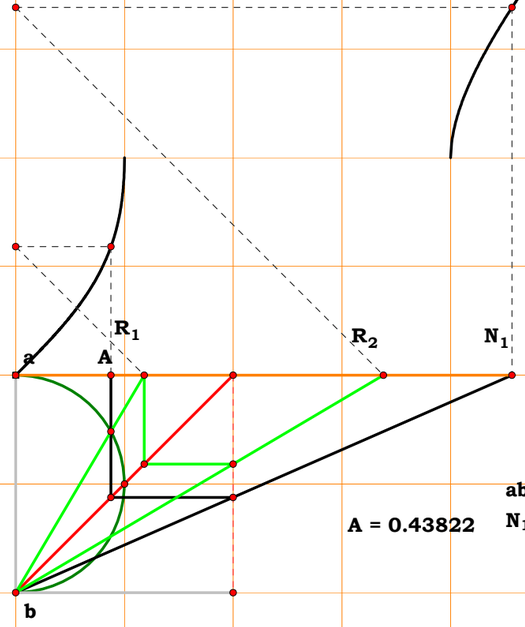
$R_1 - \frac{(2\cdot A)}{\left(\sqrt{1 - 4\cdot A^2} + 1\right)} = 0.00000$

$\frac{(2\cdot A)}{\left(\sqrt{1 - 4\cdot A^2} + 1\right)} - \frac{2}{N_1 + \sqrt{(N_1 - 2)\cdot(N_1 + 2)}} = 0.00000$

$R_2 = 1.69037$

$\frac{\left(\sqrt{1 - 4\cdot A^2} + 1\right)}{(2\cdot A)} = 1.69037$

$R_2 - \frac{\left(\sqrt{1 - 4\cdot A^2} + 1\right)}{(2\cdot A)} = 0.00000$



$ab = 1.00000$

$N_1 = 2.28196$

$A = 0.43822$

$R_1 = 0.59159$

$$\frac{2}{N_1+\sqrt{(N_1-2)\cdot(N_1+2)}} = 0.59159$$

$$\frac{(2\cdot A)}{\left(\sqrt{1-4\cdot A^2}+1\right)} = 0.59159$$

$$R_1-\frac{2}{N_1+\sqrt{(N_1-2)\cdot(N_1+2)}} = 0.00000$$

$$R_1-\frac{(2\cdot A)}{\left(\sqrt{1-4\cdot A^2}+1\right)} = 0.00000$$

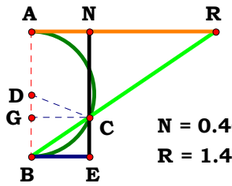
$$\frac{(2\cdot A)}{\left(\sqrt{1-4\cdot A^2}+1\right)}-\frac{2}{N_1+\sqrt{(N_1-2)\cdot(N_1+2)}} = 0.00000$$

$R_2 = 1.69037$

$$\frac{\left(\sqrt{1-4\cdot A^2}+1\right)}{(2\cdot A)} = 1.69037$$

$$R_2-\frac{\left(\sqrt{1-4\cdot A^2}+1\right)}{(2\cdot A)} = 0.00000$$

2SMT1R11



N = 0.46465
R = 1.47353

Unit. $AB := 1$ **Given.** $N := .46465$

$N_u := 3$ $A := \frac{N_u}{N}$ $Z := 20$ $q := \frac{Z}{N}$

Descriptions.

$DC := \frac{AB}{2}$ $CG := N$

$DG := \sqrt{DC^2 - CG^2}$

$CE := \frac{AB}{2} - DG$ $R := \frac{N \cdot AB}{CE}$

$R = 1.473502$

Definitions.

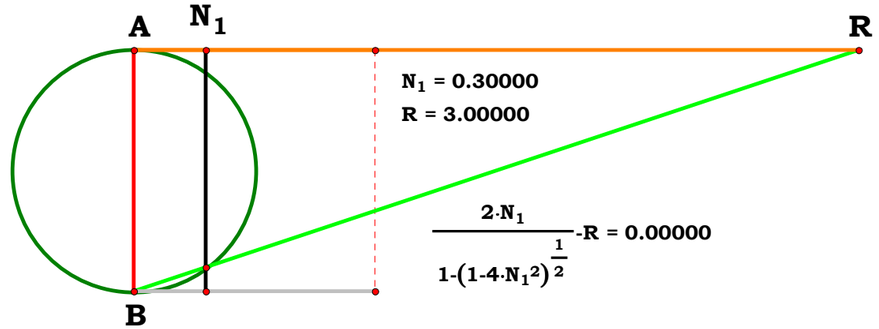
$$R - \frac{2N}{1 - \sqrt{1 - 4N^2}} = 0$$

$$N - \frac{N_u}{A} = 0$$

$$R - \frac{2 \cdot N_u}{A - \sqrt{A^2 - 4 \cdot N_u^2}} = 0$$

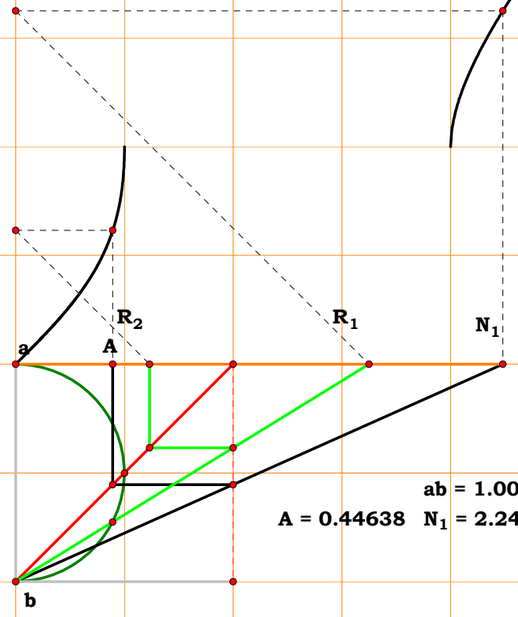
$$N - \frac{Z}{q} = 0$$

$$R - \frac{2 \cdot Z}{q - \sqrt{q^2 - 4 \cdot Z^2}} = 0$$



$N_1 = 0.30000$
$R = 3.00000$

$$\frac{2 \cdot N_1}{1 - (1 - 4 \cdot N_1^2)^{\frac{1}{2}}} - R = 0.00000$$



ab = 1.00000

A = 0.44638 N_1 = 2.24022

$R_1 = 1.62474$

$$\frac{2}{N_1-\sqrt{(N_1-2)\cdot(N_1+2)}} = 1.62474$$

$$\frac{(2\cdot A)}{\left(1-\sqrt{1-4\cdot A^2}\right)} = 1.62474$$

$$R_1-\frac{2}{N_1-\sqrt{(N_1-2)\cdot(N_1+2)}} = 0.00000$$

$$R_1-\frac{(2\cdot A)}{\left(1-\sqrt{1-4\cdot A^2}\right)} = 0.00000$$

$$\frac{(2\cdot A)}{\left(1-\sqrt{1-4\cdot A^2}\right)}-\frac{2}{N_1-\sqrt{(N_1-2)\cdot(N_1+2)}} = 0.00000$$

$R_2 = 0.61548$

$$\frac{\left(1-\sqrt{1-4\cdot A^2}\right)}{(2\cdot A)} = 0.61548$$

$$R_2-\frac{\left(1-\sqrt{1-4\cdot A^2}\right)}{(2\cdot A)} = 0.00000$$

2SMT2R0

Given.

Unit. $ab := 1$

$N_1 := 4.43238 \quad N_2 := 1.49413$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2}$

Descriptions.

$dN_2 := 1 - \frac{N_2}{N_1} \quad ad := \sqrt{N_2^{\,2} + dN_2^{\,2}}$

$ac := \frac{dN_2}{ad} \quad R_1 := \frac{ac \cdot N_2}{ad}$

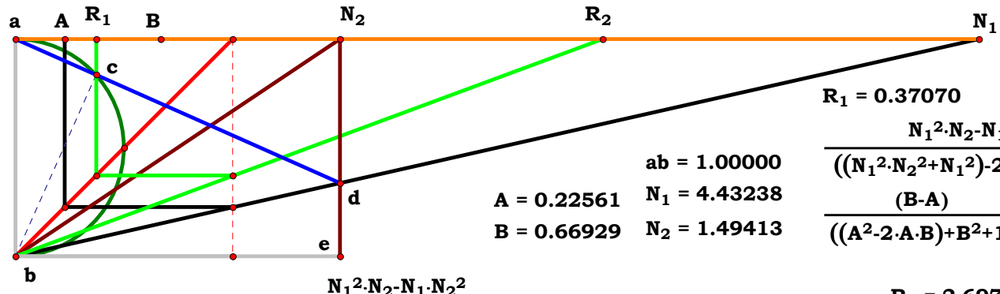
$R_1 = 0.370702 \quad R_2 := \frac{1}{R_1}$

Definitions.

$$R_1 - \frac{N_1^{\,2} \cdot N_2 - N_1 \cdot N_2^{\,2}}{N_1^{\,2} \cdot N_2^{\,2} + N_1^{\,2} - 2 \cdot N_1 \cdot N_2 + N_2^{\,2}} = 0$$

$N_1 - \frac{1}{A} = 0 \qquad N_2 - \frac{1}{B} = 0$

$$R_1 - \frac{(B - A)}{A^2 - 2 \cdot A \cdot B + B^2 + 1} = 0 \qquad R_2 - \frac{A^2 - 2 \cdot A \cdot B + B^2 + 1}{(B - A)} = 0$$



ab = 1.00000
A = 0.22561
B = 0.66929
N1 = 4.43238
N2 = 1.49413

$R_1 = 0.37070$

$$\frac{N_1^{\,2} \cdot N_2 - N_1 \cdot N_2^{\,2}}{((N_1^{\,2} \cdot N_2^{\,2} + N_1^{\,2}) - 2 \cdot N_1 \cdot N_2) + N_2^{\,2}} = 0.37070$$

$$\frac{(B-A)}{((A^2 - 2 \cdot A \cdot B) + B^2 + 1)} = 0.37070$$

$$R_1 - \frac{N_1^{\,2} \cdot N_2 - N_1 \cdot N_2^{\,2}}{((N_1^{\,2} \cdot N_2^{\,2} + N_1^{\,2}) - 2 \cdot N_1 \cdot N_2) + N_2^{\,2}} = 0.00000$$

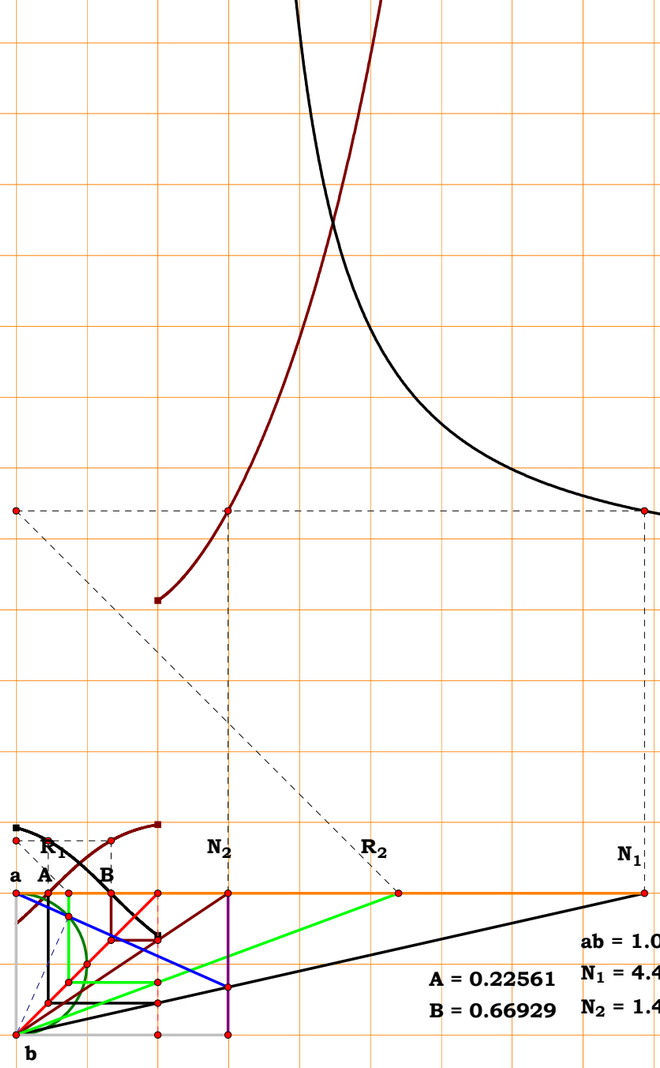
$$R_1 - \frac{(B-A)}{((A^2 - 2 \cdot A \cdot B) + B^2 + 1)} = 0.00000$$

$$\frac{(B-A)}{((A^2 - 2 \cdot A \cdot B) + B^2 + 1)} - \frac{N_1^{\,2} \cdot N_2 - N_1 \cdot N_2^{\,2}}{((N_1^{\,2} \cdot N_2^{\,2} + N_1^{\,2}) - 2 \cdot N_1 \cdot N_2) + N_2^{\,2}} = 0.00000$$

$R_2 = 2.69758$

$$\frac{((A^2 - 2 \cdot A \cdot B) + B^2 + 1)}{(B-A)} = 2.69758$$

$$R_2 - \frac{((A^2 - 2 \cdot A \cdot B) + B^2 + 1)}{(B-A)} = 0.00000$$



ab = 1.00000

A = 0.22561 N_1 = 4.43238

B = 0.66929 N_2 = 1.49413

$R_1 = 0.37070$

$$\frac{N_1^2 \cdot N_2 - N_1 \cdot N_2^2}{((N_1^2 \cdot N_2^2 + N_1^2) - 2 \cdot N_1 \cdot N_2) + N_2^2} = 0.37070$$

$$\frac{(B-A)}{((A^2 - 2 \cdot A \cdot B) + B^2 + 1)} = 0.37070$$

$$R_1 - \frac{N_1^2 \cdot N_2 - N_1 \cdot N_2^2}{((N_1^2 \cdot N_2^2 + N_1^2) - 2 \cdot N_1 \cdot N_2) + N_2^2} = 0.00000$$

$$R_1 - \frac{(B-A)}{((A^2 - 2 \cdot A \cdot B) + B^2 + 1)} = 0.00000$$

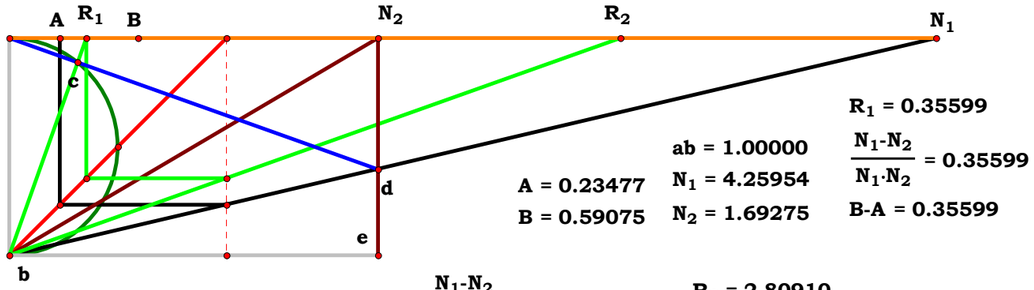
$$\frac{(B-A)}{((A^2 - 2 \cdot A \cdot B) + B^2 + 1)} - \frac{N_1^2 \cdot N_2 - N_1 \cdot N_2^2}{((N_1^2 \cdot N_2^2 + N_1^2) - 2 \cdot N_1 \cdot N_2) + N_2^2} = 0.00000$$

$R_2 = 2.69758$

$$\frac{((A^2 - 2 \cdot A \cdot B) + B^2 + 1)}{(B-A)} = 2.69758$$

$$R_2 - \frac{((A^2 - 2 \cdot A \cdot B) + B^2 + 1)}{(B-A)} = 0.00000$$

2SMT2R1



$R_1 = 0.35599$

$ab = 1.00000$ $\quad \frac{N_1-N_2}{N_1 \cdot N_2} = 0.35599$

$A = 0.23477$ $\quad N_1 = 4.25954$

$B = 0.59075$ $\quad N_2 = 1.69275$ $\quad B-A = 0.35599$

Given.

Unit. $ab := 1$

$N_1 := 4.25954 \quad N_2 := 1.69275$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2}$

$R_1 - \frac{N_1-N_2}{N_1 \cdot N_2} = 0.00000$ $\quad R_2 = 2.80910$

$R_1-(B-A) = 0.00000$ $\quad \frac{1}{(B-A)} = 2.80910$

$(B-A) - \frac{N_1-N_2}{N_1 \cdot N_2} = 0.00000$ $\quad R_2 - \frac{1}{(B-A)} = 0.00000$

Descriptions.

$dN_2 := 1 - \frac{N_2}{N_1} \quad R_1 := \frac{dN_2}{N_2}$

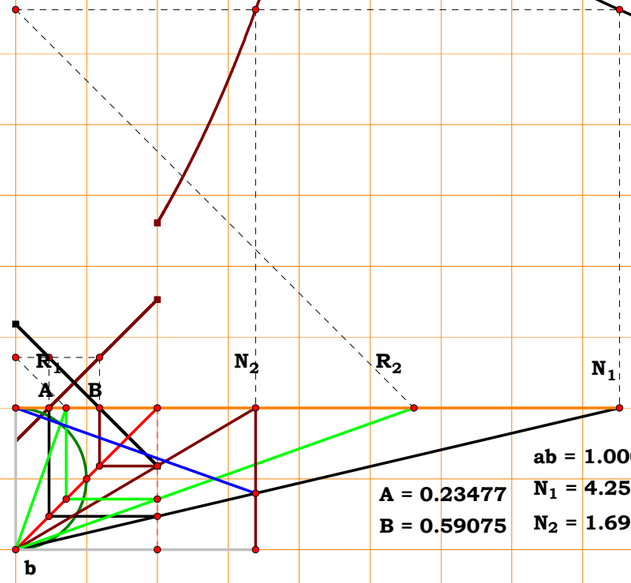
$R_1 = 0.355988 \quad R_2 := \frac{1}{R_1}$

Definitions.

$R_1 - \frac{N_1 - N_2}{N_1 \cdot N_2} = 0$

$N_1 - \frac{1}{A} = 0 \quad N_2 - \frac{1}{B} = 0$

$R_1 - (B - A) = 0 \quad R_2 - \frac{1}{B - A} = 0$



$A = 0.23477$

$B = 0.59075$

$ab = 1.00000$

$N_1 = 4.25954$

$N_2 = 1.69275$

$R_1 = 0.35599$

$\frac{N_1-N_2}{N_1 \cdot N_2} = 0.35599$

$B-A = 0.35599$

$R_1-\frac{N_1-N_2}{N_1 \cdot N_2} = 0.00000$

$R_1-(B-A) = 0.00000$

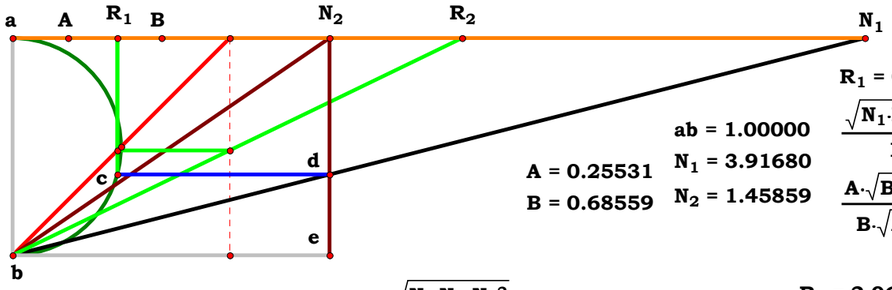
$(B-A)-\frac{N_1-N_2}{N_1 \cdot N_2} = 0.00000$

$R_2 = 2.80910$

$\frac{1}{(B-A)} = 2.80910$

$R_2-\frac{1}{(B-A)} = 0.00000$

2SMT2R2



$R_1 = 0.48344$

$ab = 1.00000$ $\quad \frac{\sqrt{N_1 \cdot N_2 - N_2^2}}{N_1} = 0.48344$

$A = 0.25531$ $\quad N_1 = 3.91680$

$B = 0.68559$ $\quad N_2 = 1.45859$ $\quad \frac{A \cdot \sqrt{B-A}}{B \cdot \sqrt{A}} = 0.48344$

Given.

Unit. $ab := 1$

$N_1 := 3.91680 \quad N_2 := 1.45859$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2}$

Descriptions.

$de := \frac{N_2}{N_1} \quad dN_2 := 1 - de \quad R_1 := \sqrt{de \cdot dN_2}$

$R_1 = 0.483442 \quad R_2 := \frac{1}{R_1}$

$R_2 - \frac{\sqrt{N_1 \cdot N_2 - N_2^2}}{N_1} = 1.58506$

$R_2 - \frac{A \cdot \sqrt{B-A}}{B \cdot \sqrt{A}} = 1.58506$

$\frac{A \cdot \sqrt{B-A}}{B \cdot \sqrt{A}} - \frac{\sqrt{N_1 \cdot N_2 - N_2^2}}{N_1} = 0.00000$

$R_2 = 2.06850$

$\frac{B \cdot \sqrt{A}}{A \cdot \sqrt{B-A}} = 2.06850$

$R_2 - \frac{B \cdot \sqrt{A}}{A \cdot \sqrt{B-A}} = 0.00000$

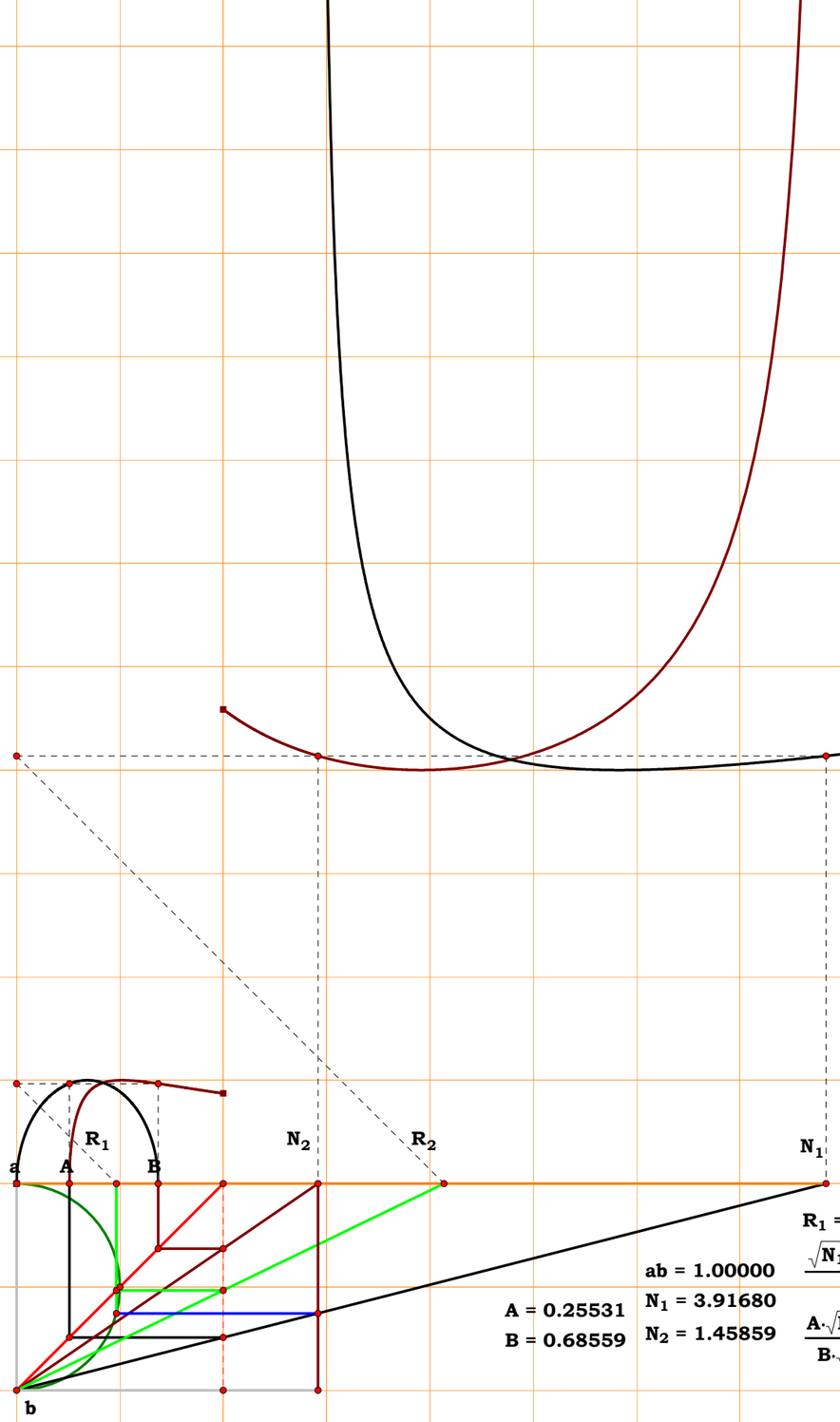
Definitions.

$R_1 - \frac{\sqrt{N_1 \cdot N_2 - N_2^2}}{N_1} = 0$

$N_1 - \frac{1}{A} = 0 \quad N_2 - \frac{1}{B} = 0$

$R_1 - \frac{A \cdot \sqrt{(B-A)}}{B \cdot \sqrt{A}} = 0 \quad R_2 - \frac{B \cdot \sqrt{A}}{A \cdot \sqrt{(B-A)}} = 0$

Another way to construct a parabola, with a different equation.



$A = 0.25531$

$B = 0.68559$

$ab = 1.00000$

$N_1 = 3.91680$

$N_2 = 1.45859$

$R_1 = 0.48344$

$$\frac{\sqrt{N_1 \cdot N_2 - N_2^2}}{N_1} = 0.48344$$

$$\frac{A \cdot \sqrt{B-A}}{B \cdot \sqrt{A}} = 0.48344$$

$$R_2 - \frac{\sqrt{N_1 \cdot N_2 - N_2^2}}{N_1} = 1.58506$$

$$R_2 - \frac{A \cdot \sqrt{B-A}}{B \cdot \sqrt{A}} = 1.58506$$

$$\frac{A \cdot \sqrt{B-A}}{B \cdot \sqrt{A}} - \frac{\sqrt{N_1 \cdot N_2 - N_2^2}}{N_1} = 0.00000$$

$R_2 = 2.06850$

$$\frac{B \cdot \sqrt{A}}{A \cdot \sqrt{B-A}} = 2.06850$$

$$R_2 - \frac{B \cdot \sqrt{A}}{A \cdot \sqrt{B-A}} = 0.00000$$

2SMT2R3

Given.

Unit. $ab := 1 \quad N_1 := 1.85701$

$N_2 := 1.57856 \quad N_3 := 2.67084$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2} \quad C := \frac{1}{N_3}$

Descriptions.

$bc := \frac{N_2}{N_1} \quad ac := 1 - bc$

$cd := \sqrt{bc \cdot ac} \quad bg := \frac{cd}{ac}$

$R_1 := \frac{N_3 \cdot bg}{N_3 + bg}$

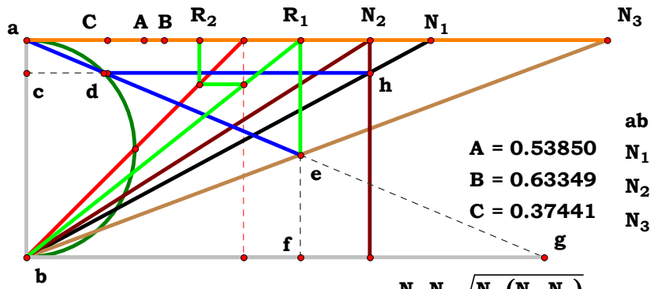
$R_1 = 1.258799 \quad R_2 := \frac{1}{R_1}$

Definitions.

$R_1 - \frac{N_1 \cdot N_3 \cdot \sqrt{N_2 \cdot (N_1 - N_2)}}{N_1 \cdot \sqrt{N_2 \cdot (N_1 - N_2)} + N_1 \cdot N_3 \cdot (N_1 - N_2)} = 0$

$N_1 - \frac{1}{A} = 0 \quad N_2 - \frac{1}{B} = 0 \quad N_3 - \frac{1}{C} = 0$

$R_1 - \frac{\sqrt{A \cdot (B - A)}}{C \cdot \sqrt{A \cdot (B - A)} + (B - A)} = 0 \quad R_2 - \frac{C \cdot \sqrt{A \cdot (B - A)} + (B - A)}{\sqrt{A \cdot (B - A)}} = 0$



$A = 0.53850$
$B = 0.63349$
$C = 0.37441$

$ab = 1.00000$
$N_1 = 1.85701$
$N_2 = 1.57856$
$N_3 = 2.67084$

$R_1 = 1.25879$

$\frac{N_1 \cdot N_3 \cdot \sqrt{N_2 \cdot (N_1 - N_2)}}{N_1 \cdot \sqrt{N_2 \cdot (N_1 - N_2)} + N_1 \cdot N_3 \cdot (N_1 - N_2)} = 1.25879$

$\frac{\sqrt{A \cdot (B - A)}}{(C \cdot \sqrt{A \cdot (B - A)} + (B - A))} = 1.25879$

$R_1 - \frac{N_1 \cdot N_3 \cdot \sqrt{N_2 \cdot (N_1 - N_2)}}{N_1 \cdot \sqrt{N_2 \cdot (N_1 - N_2)} + N_1 \cdot N_3 \cdot (N_1 - N_2)} = 0.00000$

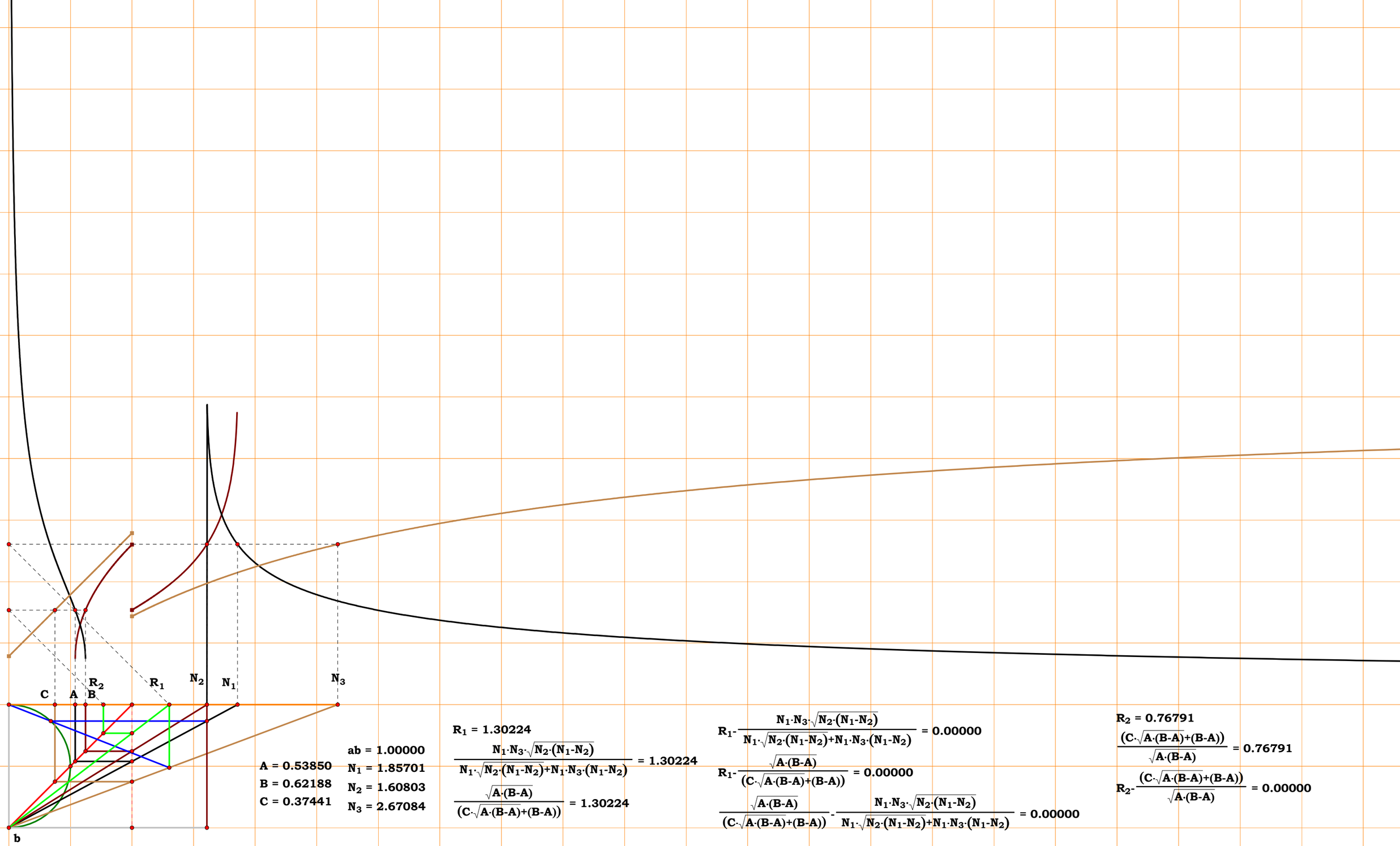
$R_1 - \frac{\sqrt{A \cdot (B - A)}}{(C \cdot \sqrt{A \cdot (B - A)} + (B - A))} = 0.00000$

$\frac{\sqrt{A \cdot (B - A)}}{(C \cdot \sqrt{A \cdot (B - A)} + (B - A))} - \frac{N_1 \cdot N_3 \cdot \sqrt{N_2 \cdot (N_1 - N_2)}}{N_1 \cdot \sqrt{N_2 \cdot (N_1 - N_2)} + N_1 \cdot N_3 \cdot (N_1 - N_2)} = 0.00000$

$R_2 = 0.79441$

$\frac{(C \cdot \sqrt{A \cdot (B - A)} + (B - A))}{\sqrt{A \cdot (B - A)}} = 0.79441$

$R_2 - \frac{(C \cdot \sqrt{A \cdot (B - A)} + (B - A))}{\sqrt{A \cdot (B - A)}} = 0.00000$



$A = 0.53850$
$B = 0.62188$
$C = 0.37441$

$ab = 1.00000$
$N_1 = 1.85701$
$N_2 = 1.60803$
$N_3 = 2.67084$

$R_1 = 1.30224$

$$\frac{N_1 \cdot N_3 \cdot \sqrt{N_2 \cdot (N_1 - N_2)}}{N_1 \cdot \sqrt{N_2 \cdot (N_1 - N_2)} + N_1 \cdot N_3 \cdot (N_1 - N_2)} = 1.30224$$

$$\frac{\sqrt{A \cdot (B-A)}}{(C \cdot \sqrt{A \cdot (B-A)} + (B-A))} = 1.30224$$

$$R_1 - \frac{N_1 \cdot N_3 \cdot \sqrt{N_2 \cdot (N_1 - N_2)}}{N_1 \cdot \sqrt{N_2 \cdot (N_1 - N_2)} + N_1 \cdot N_3 \cdot (N_1 - N_2)} = 0.00000$$

$$R_1 - \frac{\sqrt{A \cdot (B-A)}}{(C \cdot \sqrt{A \cdot (B-A)} + (B-A))} = 0.00000$$

$$\frac{\sqrt{A \cdot (B-A)}}{(C \cdot \sqrt{A \cdot (B-A)} + (B-A))} - \frac{N_1 \cdot N_3 \cdot \sqrt{N_2 \cdot (N_1 - N_2)}}{N_1 \cdot \sqrt{N_2 \cdot (N_1 - N_2)} + N_1 \cdot N_3 \cdot (N_1 - N_2)} = 0.00000$$

$R_2 = 0.76791$

$$\frac{(C \cdot \sqrt{A \cdot (B-A)} + (B-A))}{\sqrt{A \cdot (B-A)}} = 0.76791$$

$$R_2 - \frac{(C \cdot \sqrt{A \cdot (B-A)} + (B-A))}{\sqrt{A \cdot (B-A)}} = 0.00000$$

2SMT2R4

Given.

Unit. $ab := 1$

$N_1 := 3.13506 \quad N_2 := 1.93419$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2}$

Descriptions.

$ef := \frac{N_2}{N_1} \quad eN_2 := 1 - ef$

$cd := \sqrt{ef \cdot eN_2} \quad R_1 := \frac{cd}{ef}$

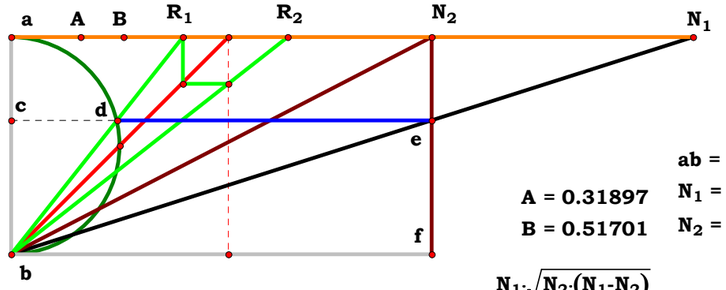
$R_1 = 0.78795 \quad R_2 := \frac{1}{R_1}$

Definitions.

$R_1 - \frac{N_1 \cdot \sqrt{N_2 \cdot (N_1 - N_2)}}{N_1 \cdot N_2} = 0$

$N_1 - \frac{1}{A} = 0 \quad N_2 - \frac{1}{B} = 0$

$R_1 - \frac{B \cdot \sqrt{B - A}}{\sqrt{A \cdot B^2}} = 0 \quad R_2 - \frac{\sqrt{A \cdot B^2}}{B \cdot \sqrt{B - A}} = 0$



$ab = 1.00000$

$A = 0.31897 \quad N_1 = 3.13506$

$B = 0.51701 \quad N_2 = 1.93419$

$R_1 = 0.78795$

$\frac{N_1 \cdot \sqrt{N_2 \cdot (N_1 - N_2)}}{N_1 \cdot N_2} = 0.78795$

$\frac{(B \cdot \sqrt{B - A})}{\sqrt{A \cdot B^2}} = 0.78795$

$R_1 - \frac{N_1 \cdot \sqrt{N_2 \cdot (N_1 - N_2)}}{N_1 \cdot N_2} = 0.00000$

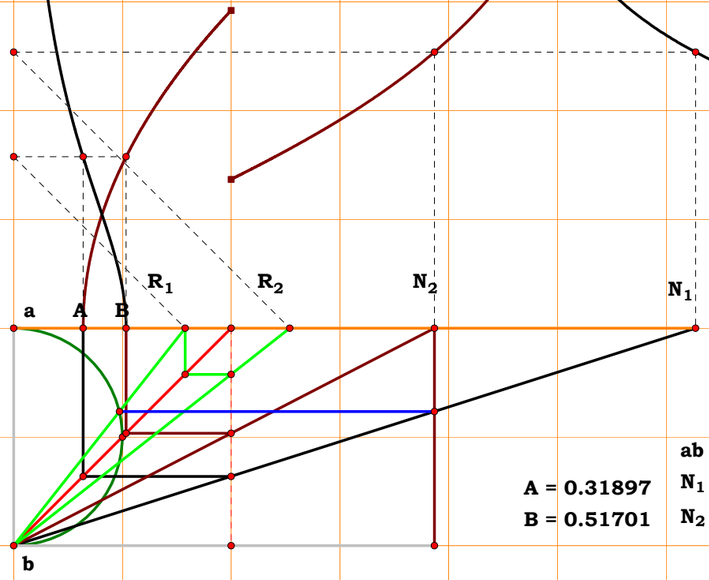
$R_1 - \frac{(B \cdot \sqrt{B - A})}{\sqrt{A \cdot B^2}} = 0.00000$

$\frac{(B \cdot \sqrt{B - A})}{\sqrt{A \cdot B^2}} - \frac{N_1 \cdot \sqrt{N_2 \cdot (N_1 - N_2)}}{N_1 \cdot N_2} = 0.00000$

$R_2 = 1.26912$

$\frac{\sqrt{A \cdot B^2}}{(B \cdot \sqrt{B - A})} = 1.26912$

$R_2 - \frac{\sqrt{A \cdot B^2}}{(B \cdot \sqrt{B - A})} = 0.00000$



A = 0.31897
B = 0.51701

ab = 1.00000
N1 = 3.13506
N2 = 1.93419

$R_1 = 0.78795$

$\frac{N_1 \cdot \sqrt{N_2 \cdot (N_1 - N_2)}}{N_1 \cdot N_2} = 0.78795$

$\frac{(B \cdot \sqrt{B-A})}{\sqrt{A \cdot B^2}} = 0.78795$

$R_1 - \frac{N_1 \cdot \sqrt{N_2 \cdot (N_1 - N_2)}}{N_1 \cdot N_2} = 0.00000$

$R_1 - \frac{(B \cdot \sqrt{B-A})}{\sqrt{A \cdot B^2}} = 0.00000$

$\frac{(B \cdot \sqrt{B-A})}{\sqrt{A \cdot B^2}} - \frac{N_1 \cdot \sqrt{N_2 \cdot (N_1 - N_2)}}{N_1 \cdot N_2} = 0.00000$

$R_2 = 1.26912$

$\frac{\sqrt{A \cdot B^2}}{(B \cdot \sqrt{B-A})} = 1.26912$

$R_2 - \frac{\sqrt{A \cdot B^2}}{(B \cdot \sqrt{B-A})} = 0.00000$

2SMT2R5

Given.

Unit. $ab := 1$

$N_1 := 2.78321 \quad N_2 := 1.81122$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2}$

Descriptions.

$ef := \frac{N_2}{N_1} \quad eN_2 := 1 - ef$

$cd := \sqrt{eN_2 \cdot ef} \quad R_1 := \frac{cd}{eN_2}$

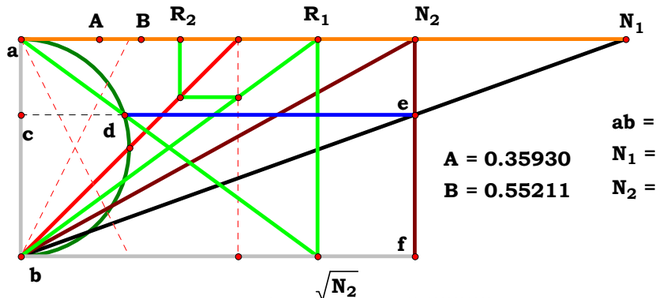
$R_1 = 1.365069 \quad R_2 := \frac{1}{R_1}$

Definitions.

$R_1 - \frac{\sqrt{N_2}}{\sqrt{N_1 - N_2}} = 0$

$N_1 - \frac{1}{A} = 0 \quad N_2 - \frac{1}{B} = 0$

$R_1 - \frac{\sqrt{A \cdot B}}{\sqrt{B} \cdot \sqrt{B - A}} = 0 \quad R_2 - \frac{\sqrt{B} \cdot \sqrt{B - A}}{\sqrt{A \cdot B}} = 0$



$A = 0.35930$

$B = 0.55211$

$R_1 - \frac{\sqrt{N_2}}{\sqrt{N_1 - N_2}} = 0.00000$

$R_1 - \frac{\sqrt{A \cdot B}}{\sqrt{B \cdot (B - A)}} = 0.00000$

$\frac{\sqrt{A \cdot B}}{\sqrt{B \cdot (B - A)}} - \frac{\sqrt{N_2}}{\sqrt{N_1 - N_2}} = 0.00000$

$R_1 = 1.36507$

$ab = 1.00000 \quad \frac{\sqrt{N_2}}{\sqrt{N_1 - N_2}} = 1.36507$

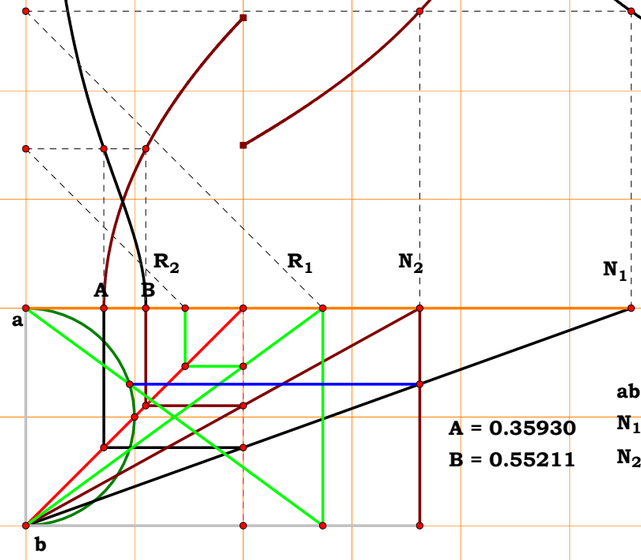
$N_1 = 2.78321$

$N_2 = 1.81122 \quad \frac{\sqrt{A \cdot B}}{\sqrt{B \cdot (B - A)}} = 1.36507$

$R_2 = 0.73256$

$\frac{\sqrt{B \cdot (B - A)}}{\sqrt{A \cdot B}} = 0.73256$

$R_2 - \frac{\sqrt{B \cdot (B - A)}}{\sqrt{A \cdot B}} = 0.00000$



A = 0.35930

B = 0.55211

ab = 1.00000

N_1 = 2.78321

N_2 = 1.81122

R_1 = 1.36507

$\frac{\sqrt{N_2}}{\sqrt{N_1-N_2}}$ = 1.36507

$\frac{\sqrt{A\cdot B}}{\sqrt{B\cdot(B-A)}}$ = 1.36507

$R_1-\frac{\sqrt{N_2}}{\sqrt{N_1-N_2}}$ = 0.00000

$R_1-\frac{\sqrt{A\cdot B}}{\sqrt{B\cdot(B-A)}}$ = 0.00000

$\frac{\sqrt{A\cdot B}}{\sqrt{B\cdot(B-A)}}-\frac{\sqrt{N_2}}{\sqrt{N_1-N_2}}$ = 0.00000

R_2 = 0.73256

$\frac{\sqrt{B\cdot(B-A)}}{\sqrt{A\cdot B}}$ = 0.73256

$R_2-\frac{\sqrt{B\cdot(B-A)}}{\sqrt{A\cdot B}}$ = 0.00000

2SMT2R6

Given.

Unit. $ab := 1$ $N_1 := 1.56138$

$N_2 := 1.94250$ $N_3 := 3.54880$ $N_4 := 1.29013$

$A := \frac{1}{N_1}$ $B := \frac{1}{N_2}$ $C := \frac{1}{N_3}$ $D := \frac{1}{N_4}$

Descriptions.

$bN_1 := \sqrt{1 + N_1^2}$ $bc := \frac{1}{bN_1}$

$de := \frac{bc}{bN_1}$ $fg := \frac{N_2}{N_3}$ $R_1 := \frac{N_4}{de} \cdot fg$

$R_1 = 2.427768$ $R_2 := \frac{1}{R_1}$

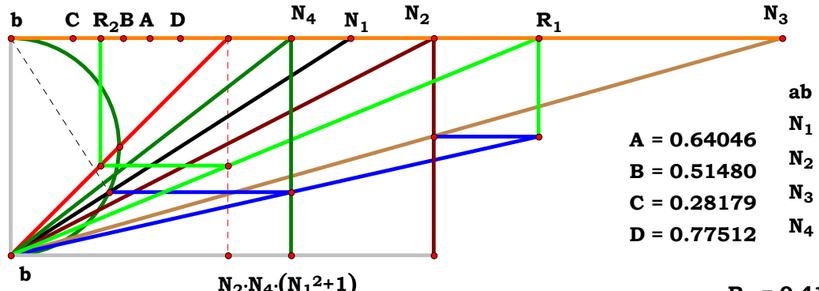
Definitions.

$R_1 - \frac{N_2 \cdot N_4 \cdot (N_1^2 + 1)}{N_3} = 0$

$N_1 - \frac{1}{A} = 0$ $N_2 - \frac{1}{B} = 0$

$N_3 - \frac{1}{C} = 0$ $N_4 - \frac{1}{D} = 0$

$R_1 - \frac{C \cdot (A^2 + 1)}{A^2 \cdot B \cdot D} = 0$ $R_2 - \frac{A^2 \cdot B \cdot D}{C \cdot (A^2 + 1)} = 0$



$A = 0.64046$
$B = 0.51480$
$C = 0.28179$
$D = 0.77512$

$ab = 1.00000$
$N_1 = 1.56138$
$N_2 = 1.94250$
$N_3 = 3.54880$
$N_4 = 1.29013$

$R_1 = 2.42778$

$\frac{N_2 \cdot N_4 \cdot (N_1^2 + 1)}{N_3} = 2.42778$

$\frac{(C \cdot (A^2 + 1))}{(A^2 \cdot B \cdot D)} = 2.42778$

$R_1 - \frac{N_2 \cdot N_4 \cdot (N_1^2 + 1)}{N_3} = 0.00000$

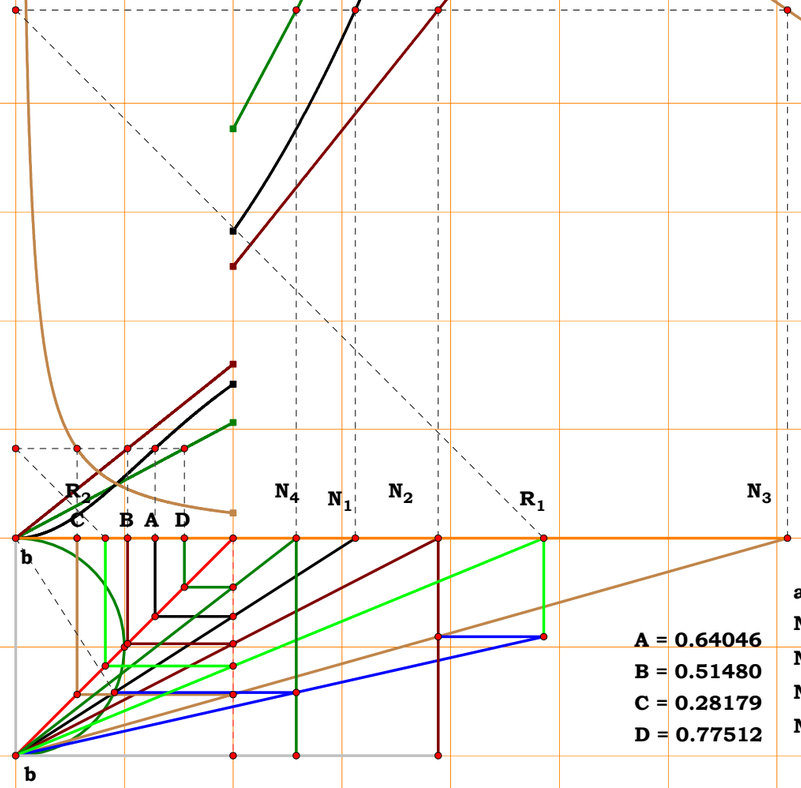
$R_1 - \frac{(C \cdot (A^2 + 1))}{(A^2 \cdot B \cdot D)} = 0.00000$

$\frac{(C \cdot (A^2 + 1))}{(A^2 \cdot B \cdot D)} - \frac{N_2 \cdot N_4 \cdot (N_1^2 + 1)}{N_3} = 0.00000$

$R_2 = 0.41190$

$\frac{(A^2 \cdot B \cdot D)}{(C \cdot (A^2 + 1))} = 0.41190$

$R_2 - \frac{(A^2 \cdot B \cdot D)}{(C \cdot (A^2 + 1))} = 0.00000$



$A = 0.64046$
$B = 0.51480$
$C = 0.28179$
$D = 0.77512$

$ab = 1.00000$ $\quad R_1 = 2.42778$

$N_1 = 1.56138$ $\quad \dfrac{N_2 \cdot N_4 \cdot (N_1^2+1)}{N_3} = 2.42778$

$N_2 = 1.94250$

$N_3 = 3.54880$ $\quad \dfrac{(C \cdot (A^2+1))}{(A^2 \cdot B \cdot D)} = 2.42778$

$N_4 = 1.29013$

$$R_1 - \frac{N_2 \cdot N_4 \cdot (N_1^2+1)}{N_3} = 0.00000$$

$$R_1 - \frac{(C \cdot (A^2+1))}{(A^2 \cdot B \cdot D)} = 0.00000$$

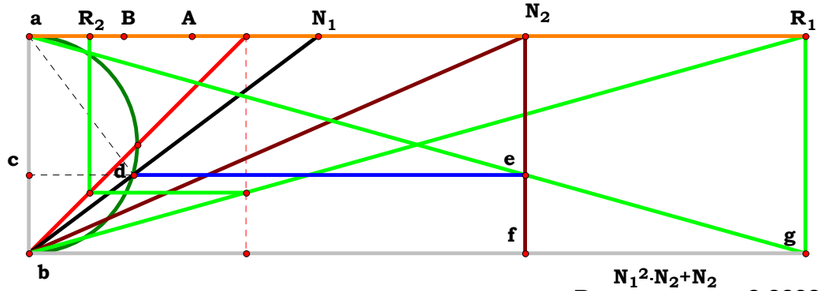
$$\frac{(C \cdot (A^2+1))}{(A^2 \cdot B \cdot D)} - \frac{N_2 \cdot N_4 \cdot (N_1^2+1)}{N_3} = 0.00000$$

$R_2 = 0.41190$

$$\frac{(A^2 \cdot B \cdot D)}{(C \cdot (A^2+1))} = 0.41190$$

$$R_2 - \frac{(A^2 \cdot B \cdot D)}{(C \cdot (A^2+1))} = 0.00000$$

2SMT2R7



ab = 1.00000
A = 0.75131 N1 = 1.33102
B = 0.43811 N2 = 2.28253

$R_1 = 3.57093$

$\frac{N_1^2 \cdot N_2 + N_2}{N_1^2} = 3.57093$

$\frac{(A^2+1)}{B} = 3.57093$

Given.

Unit. $ab := 1$

$N_1 := 1.33103 \quad N_2 := 2.28253$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2}$

Descriptions.

$bN_1 := \sqrt{1 + N_1^2} \quad bd := \frac{1}{bN_1} \quad ef := \frac{bd}{bN_1}$

$R_1 := \frac{N_2}{1 - ef} \qquad R_2 := \frac{1}{R_1}$

$R_1 = 3.570901$

Definitions.

$R_1 - \frac{N_1^2 \cdot N_2 + N_2}{N_1^2} = 0$

$N_1 - \frac{1}{A} = 0 \qquad N_2 - \frac{1}{B} = 0$

$R_1 - \frac{A^2 + 1}{B} = 0 \qquad R_2 - \frac{B}{A^2 + 1} = 0$

$R_1 - \frac{N_1^2 \cdot N_2 + N_2}{N_1^2} = 0.00000$

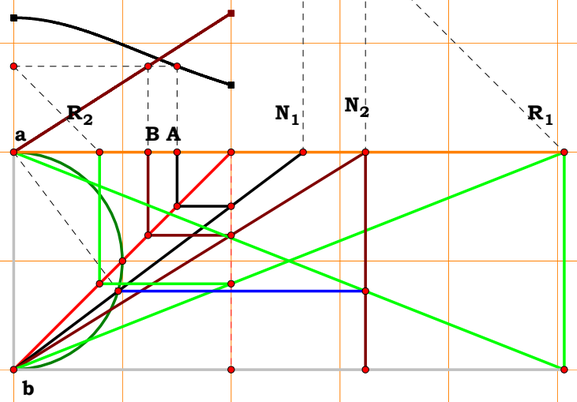
$R_1 - \frac{(A^2+1)}{B} = 0.00000$

$\frac{(A^2+1)}{B} - \frac{N_1^2 \cdot N_2 + N_2}{N_1^2} = 0.00000$

$R_2 = 0.28004$

$\frac{B}{(A^2+1)} = 0.28004$

$R_2 - \frac{B}{(A^2+1)} = 0.00000$



A = 0.75131
B = 0.61809

ab = 1.00000
N_1 = 1.33102
N_2 = 1.61789

R_1 = 2.53113

$\frac{N_1^2 \cdot N_2 + N_2}{N_1^2}$ = 2.53113

$\frac{(A^2+1)}{B}$ = 2.53113

$R_1 - \frac{N_1^2 \cdot N_2 + N_2}{N_1^2}$ = 0.00000

$R_1 - \frac{(A^2+1)}{B}$ = 0.00000

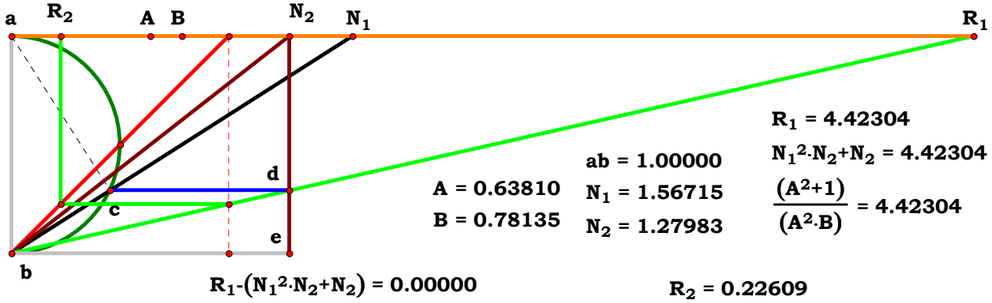
$\frac{(A^2+1)}{B} - \frac{N_1^2 \cdot N_2 + N_2}{N_1^2}$ = 0.00000

R_2 = 0.39508

$\frac{B}{(A^2+1)}$ = 0.39508

$R_2 - \frac{B}{(A^2+1)}$ = 0.00000

2SMT2R8



$R_1 = 4.42304$

$N_1^2 \cdot N_2 + N_2 = 4.42304$

$\frac{(A^2+1)}{(A^2 \cdot B)} = 4.42304$

ab = 1.00000

A = 0.63810

$N_1 = 1.56715$

B = 0.78135

$N_2 = 1.27983$

Given.

Unit. $ab := 1$ $N_1 := 1.56715$

$N_2 := 1.27983$

$A := \frac{1}{N_1}$ $B := \frac{1}{N_2}$

Descriptions.

$bN_1 := \sqrt{1 + N_1^2}$ $bc := \frac{1}{bN_1}$

$de := \frac{bc}{bN_1}$ $R_1 := \frac{N_2}{de}$

$R_1 = 4.42304$ $R_2 := \frac{1}{R_1}$

Definitions.

$R_1 - \left(N_1^2 \cdot N_2 + N_2\right) = 0$

$N_1 - \frac{1}{A} = 0$ $N_2 - \frac{1}{B} = 0$

$R_1 - \frac{\left(A^2 + 1\right)}{A^2 \cdot B} = 0$ $R_2 - \frac{A^2 \cdot B}{A^2 + 1} = 0$

$R_1 - (N_1^2 \cdot N_2 + N_2) = 0.00000$

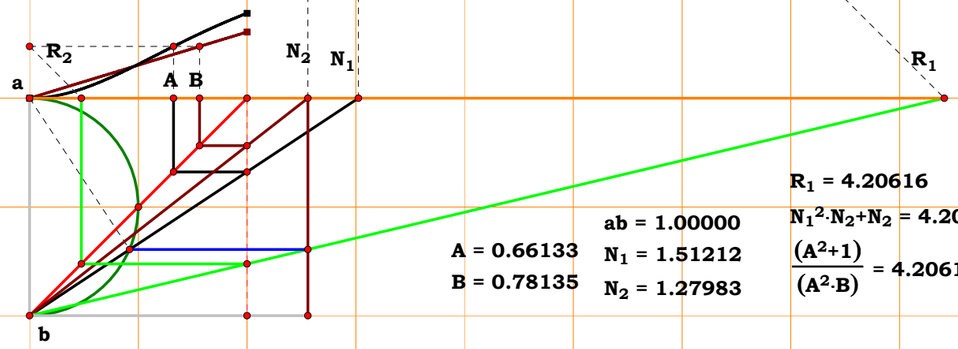
$R_1 - \frac{(A^2+1)}{(A^2 \cdot B)} = 0.00000$

$\frac{(A^2+1)}{(A^2 \cdot B)} - (N_1^2 \cdot N_2 + N_2) = 0.00000$

$R_2 = 0.22609$

$\frac{(A^2 \cdot B)}{(A^2+1)} = 0.22609$

$R_2 - \frac{(A^2 \cdot B)}{(A^2+1)} = 0.00000$



A = 0.66133
B = 0.78135

ab = 1.00000
N_1 = 1.51212
N_2 = 1.27983

R_1 = 4.20616

$N_1^2 \cdot N_2 + N_2$ = 4.20616

$\frac{(A^2+1)}{(A^2 \cdot B)}$ = 4.20616

$R_1 - (N_1^2 \cdot N_2 + N_2)$ = 0.00000

$R_1 - \frac{(A^2+1)}{(A^2 \cdot B)}$ = 0.00000

$\frac{(A^2+1)}{(A^2 \cdot B)} - (N_1^2 \cdot N_2 + N_2)$ = 0.00000

R_2 = 0.23775

$\frac{(A^2 \cdot B)}{(A^2+1)}$ = 0.23775

$R_2 - \frac{(A^2 \cdot B)}{(A^2+1)}$ = 0.00000

2SMT2R9

Given.

Unit. $ab := 1$

$N_1 := 1.95041 \quad N_2 := 1.28816$

$N_3 := 2.67771 \quad N_4 := 1.57968$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2} \quad C := \frac{1}{N_3} \quad D := \frac{1}{N_4}$

Descriptions.

$ac := 1 - \frac{N_2}{N_1} \quad cd := \sqrt{ac \cdot (1 - ac)}$

$bf := \frac{cd}{ac} \quad gh := \frac{bf}{bf + N_3} \quad R_1 := \frac{N_4}{gh}$

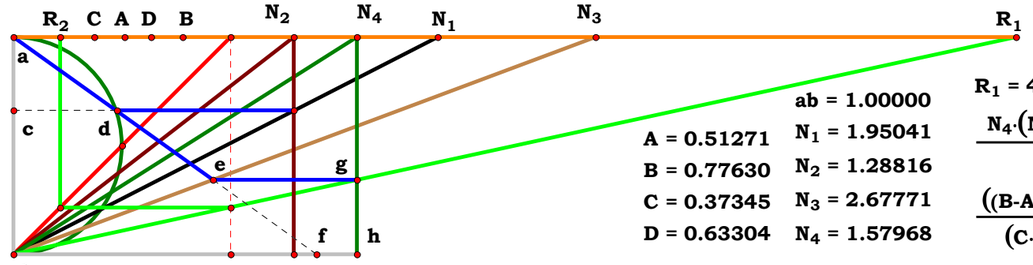
$R_1 = 4.612585 \quad R_2 := \frac{1}{R_1}$

Definitions.

$$R_1 - \frac{N_4 \cdot \left[N_1 \cdot \sqrt{N_2 \cdot (N_1 - N_2)} + N_1 \cdot N_3 \cdot (N_1 - N_2) \right]}{N_1 \cdot \sqrt{N_2 \cdot (N_1 - N_2)}} = 0$$

$N_1 - \frac{1}{A} = 0 \quad N_2 - \frac{1}{B} = 0 \quad N_3 - \frac{1}{C} = 0 \quad N_{.}4 - \frac{1}{D} = 0$

$$R_1 - \frac{\left[(B - A) + C \cdot \sqrt{A \cdot (B - A)} \right]}{C \cdot D \cdot \sqrt{A \cdot (B - A)}} = 0 \qquad R_2 - \frac{C \cdot D \cdot \sqrt{A \cdot (B - A)}}{\left[(B - A) + C \cdot \sqrt{A \cdot (B - A)} \right]} = 0$$



ab = 1.00000

A = 0.51271 N1 = 1.95041

B = 0.77630 N2 = 1.28816

C = 0.37345 N3 = 2.67771

D = 0.63304 N4 = 1.57968

$R_1 = 4.61259$

$$\frac{N_4 \cdot \left(N_1 \cdot \sqrt{N_2 \cdot (N_1 - N_2)} + N_1 \cdot N_3 \cdot (N_1 - N_2) \right)}{N_1 \cdot \sqrt{N_2 \cdot (N_1 - N_2)}} = 4.61259$$

$$\frac{\left((B - A) + C \cdot \sqrt{A \cdot (B - A)} \right)}{\left(C \cdot D \cdot \sqrt{A \cdot (B - A)} \right)} = 4.61259$$

$$R_1 - \frac{N_4 \cdot \left(N_1 \cdot \sqrt{N_2 \cdot (N_1 - N_2)} + N_1 \cdot N_3 \cdot (N_1 - N_2) \right)}{N_1 \cdot \sqrt{N_2 \cdot (N_1 - N_2)}} = 0.00000$$

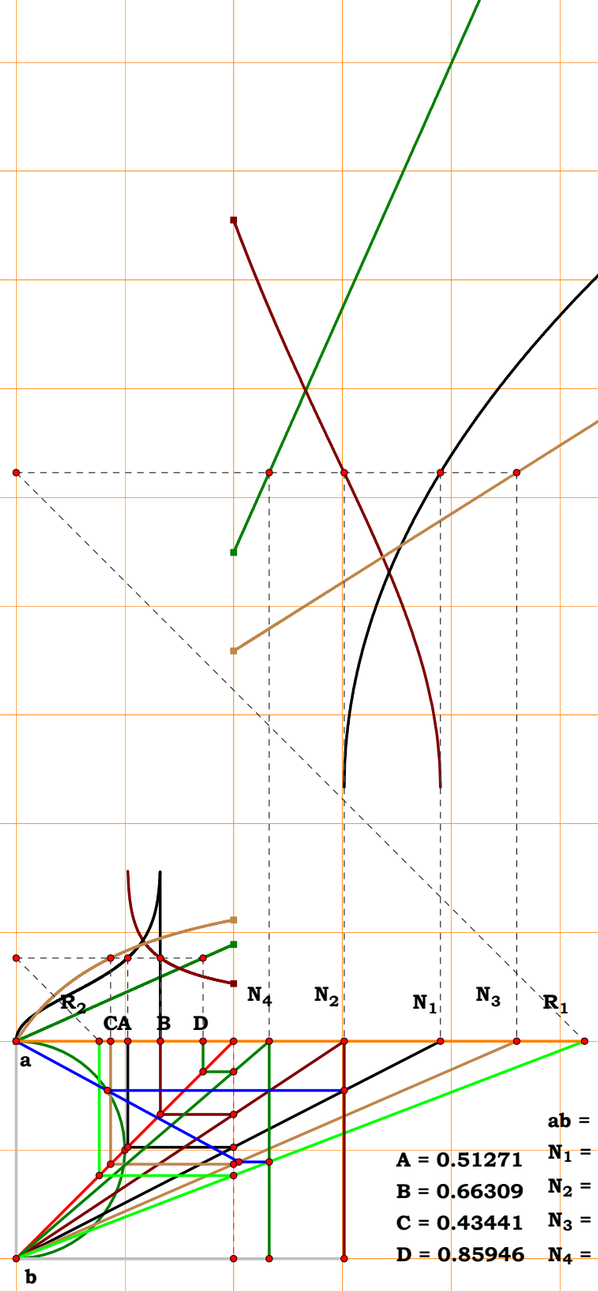
$$R_1 - \frac{\left((B - A) + C \cdot \sqrt{A \cdot (B - A)} \right)}{\left(C \cdot D \cdot \sqrt{A \cdot (B - A)} \right)} = 0.00000$$

$$\frac{\left((B - A) + C \cdot \sqrt{A \cdot (B - A)} \right)}{\left(C \cdot D \cdot \sqrt{A \cdot (B - A)} \right)} - - \frac{N_4 \cdot \left(N_1 \cdot \sqrt{N_2 \cdot (N_1 - N_2)} + N_1 \cdot N_3 \cdot (N_1 - N_2) \right)}{N_1 \cdot \sqrt{N_2 \cdot (N_1 - N_2)}} = 9.22518$$

$R_2 = 0.21680$

$$\frac{\left(C \cdot D \cdot \sqrt{A \cdot (B - A)} \right)}{\left((B - A) + C \cdot \sqrt{A \cdot (B - A)} \right)} = 0.21680$$

$$R_2 - \frac{\left(C \cdot D \cdot \sqrt{A \cdot (B - A)} \right)}{\left((B - A) + C \cdot \sqrt{A \cdot (B - A)} \right)} = 0.00000$$



A = 0.51271
B = 0.66309
C = 0.43441
D = 0.85946

ab = 1.00000
N_1 = 1.95041
N_2 = 1.50809
N_3 = 2.30195
N_4 = 1.16352

R_1 = 2.61404

$$\frac{N_4\cdot\left(N_1\cdot\sqrt{N_2\cdot(N_1-N_2)}+N_1\cdot N_3\cdot(N_1-N_2)\right)}{N_1\cdot\sqrt{N_2\cdot(N_1-N_2)}} = 2.61404$$

$$\frac{((B-A)+C\cdot\sqrt{A\cdot(B-A)})}{(C\cdot D\cdot\sqrt{A\cdot(B-A)})} = 2.61404$$

$$R_1-\frac{N_4\cdot\left(N_1\cdot\sqrt{N_2\cdot(N_1-N_2)}+N_1\cdot N_3\cdot(N_1-N_2)\right)}{N_1\cdot\sqrt{N_2\cdot(N_1-N_2)}} = 0.00000$$

$$R_1-\frac{((B-A)+C\cdot\sqrt{A\cdot(B-A)})}{(C\cdot D\cdot\sqrt{A\cdot(B-A)})} = 0.00000$$

$$\frac{((B-A)+C\cdot\sqrt{A\cdot(B-A)})}{(C\cdot D\cdot\sqrt{A\cdot(B-A)})}--\frac{N_4\cdot\left(N_1\cdot\sqrt{N_2\cdot(N_1-N_2)}+N_1\cdot N_3\cdot(N_1-N_2)\right)}{N_1\cdot\sqrt{N_2\cdot(N_1-N_2)}} = 5.22807$$

R_2 = 0.38255

$$\frac{(C\cdot D\cdot\sqrt{A\cdot(B-A)})}{((B-A)+C\cdot\sqrt{A\cdot(B-A)})} = 0.38255$$

$$R_2-\frac{(C\cdot D\cdot\sqrt{A\cdot(B-A)})}{((B-A)+C\cdot\sqrt{A\cdot(B-A)})} = 0.00000$$

2SMT3R0

Given.

Unit. $ab := 1$

$N_1 := 1.76952 \quad N_2 := 1.15096$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2}$

Descriptions.

$bN_1 := \sqrt{1 + N_1^2} \quad bd := \frac{1}{bN_1}$

$be := \frac{N_1 \cdot bd}{bN_1} \quad ef := N_2 - be$

$ce := \overline{ef} \quad R_1 := \overline{be}$

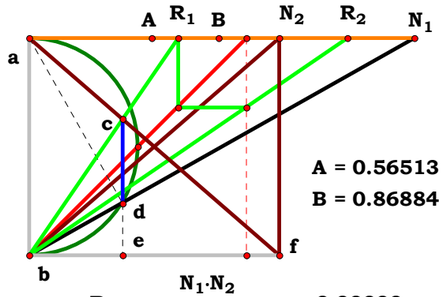
$R_1 = 0.682219 \quad R_2 := \frac{1}{R_1}$

Definitions.

$R_1 - \frac{N_1 \cdot N_2}{N_1^2 \cdot N_2 + N_2 - N_1} = 0$

$N_1 - \frac{1}{A} = 0 \quad N_2 - \frac{1}{B} = 0$

$R_1 - \frac{A}{A^2 - B \cdot A + 1} = 0 \quad R_2 - \frac{A^2 - B \cdot A + 1}{A} = 0$



$A = 0.56513 \quad B = 0.86884$

$ab = 1.00000 \quad N_1 = 1.76952 \quad N_2 = 1.15096$

$R_1 = 0.68222$

$\frac{N_1 \cdot N_2}{(N_1^2 \cdot N_2 + N_2) - N_1} = 0.68222$

$\frac{A}{((A^2 - A \cdot B) + 1)} = 0.68222$

$R_1 - \frac{N_1 \cdot N_2}{(N_1^2 \cdot N_2 + N_2) - N_1} = 0.00000$

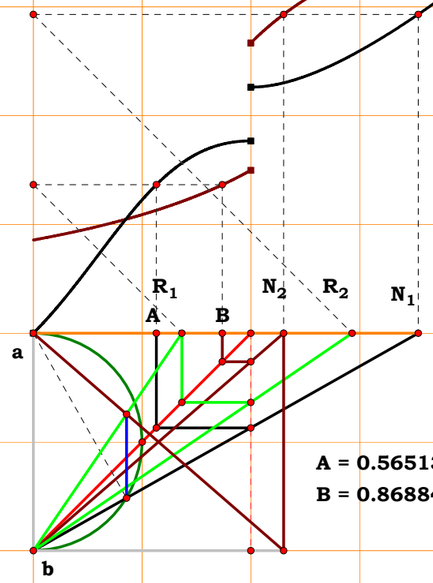
$R_1 - \frac{A}{((A^2 - A \cdot B) + 1)} = 0.00000$

$\frac{A}{((A^2 - A \cdot B) + 1)} - \frac{N_1 \cdot N_2}{(N_1^2 \cdot N_2 + N_2) - N_1} = 0.00000$

$R_2 = 1.46581$

$\frac{((A^2 - A \cdot B) + 1)}{A} = 1.46581$

$R_2 - \frac{((A^2 - A \cdot B) + 1)}{A} = 0.00000$



$A = 0.56513$

$B = 0.86884$

$ab = 1.00000$

$N_1 = 1.76952$

$N_2 = 1.15096$

$R_1 = 0.68222$

$$\frac{N_1 \cdot N_2}{(N_1^2 \cdot N_2 + N_2) - N_1} = 0.68222$$

$$\frac{A}{((A^2 - A \cdot B) + 1)} = 0.68222$$

$$R_1 - \frac{N_1 \cdot N_2}{(N_1^2 \cdot N_2 + N_2) - N_1} = 0.00000$$

$$R_1 - \frac{A}{((A^2 - A \cdot B) + 1)} = 0.00000$$

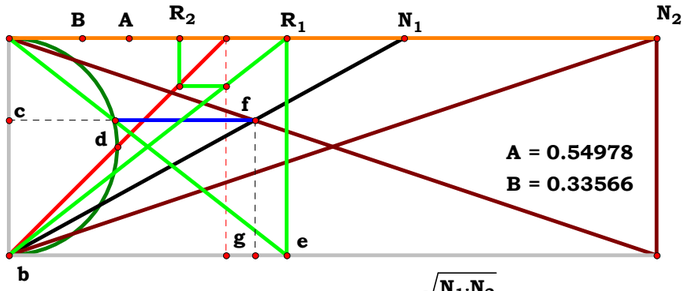
$$\frac{A}{((A^2 - A \cdot B) + 1)} - \frac{N_1 \cdot N_2}{(N_1^2 \cdot N_2 + N_2) - N_1} = 0.00000$$

$R_2 = 1.46581$

$$\frac{((A^2 - A \cdot B) + 1)}{A} = 1.46581$$

$$R_2 - \frac{((A^2 - A \cdot B) + 1)}{A} = 0.00000$$

2SMT3R1



Given.

Unit. $ab := 1$

$N_1 := 1.81893 \quad N_2 := 2.97919$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2}$

Descriptions.

$fg := \frac{N_2}{N_1 + N_2} \quad cd := \sqrt{fg \cdot (1 - fg)} \quad R_1 := \frac{cd}{1 - fg}$

$R_1 = 1.279797 \quad R_2 := \frac{1}{R_1}$

Definitions.

$R_1 - \frac{\sqrt{N_1 \cdot N_2}}{N_1} = 0$

$N_1 - \frac{1}{A} = 0 \quad N_2 - \frac{1}{B} = 0$

$R_1 - \frac{A}{\sqrt{A \cdot B}} = 0 \quad R_2 - \frac{\sqrt{A \cdot B}}{A} = 0$

$R_1 = 1.27980$

$ab = 1.00000 \quad \frac{\sqrt{N_1 \cdot N_2}}{N_1} = 1.27980$

$N_1 = 1.81893 \quad \frac{A}{\sqrt{A \cdot B}} = 1.27980$

$N_2 = 2.97919$

$R_1 - \frac{\sqrt{N_1 \cdot N_2}}{N_1} = 0.00000$

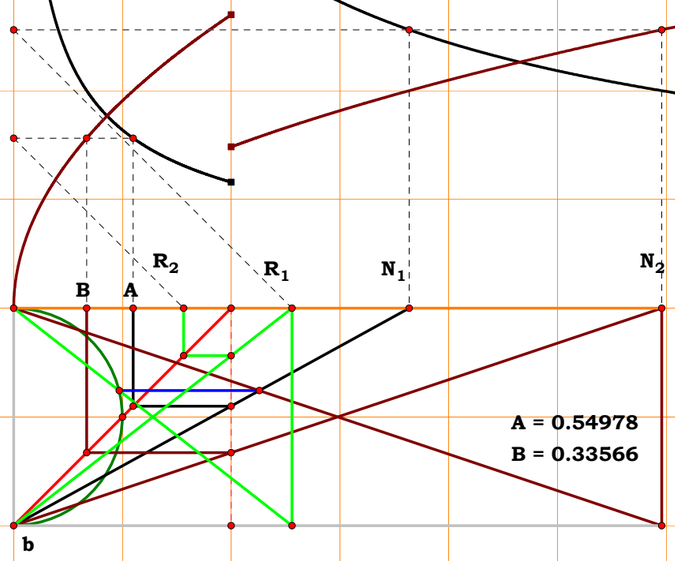
$R_1 - \frac{A}{\sqrt{A \cdot B}} = 0.00000$

$\frac{A}{\sqrt{A \cdot B}} - \frac{\sqrt{N_1 \cdot N_2}}{N_1} = 0.00000$

$R_2 = 0.78137$

$\frac{\sqrt{A \cdot B}}{A} = 0.78137$

$R_2 - \frac{\sqrt{A \cdot B}}{A} = 0.00000$



A = 0.54978

B = 0.33566

ab = 1.00000

N_1 = 1.81893

N_2 = 2.97919

R_1 = 1.27980

$\frac{\sqrt{N_1 \cdot N_2}}{N_1}$ = 1.27980

$\frac{A}{\sqrt{A \cdot B}}$ = 1.27980

$R_1 - \frac{\sqrt{N_1 \cdot N_2}}{N_1}$ = 0.00000

$R_1 - \frac{A}{\sqrt{A \cdot B}}$ = 0.00000

$\frac{A}{\sqrt{A \cdot B}} - \frac{\sqrt{N_1 \cdot N_2}}{N_1}$ = 0.00000

R_2 = 0.78137

$\frac{\sqrt{A \cdot B}}{A}$ = 0.78137

$R_2 - \frac{\sqrt{A \cdot B}}{A}$ = 0.00000

2SMT3R2

Given.

Unit. $ab := 1$

$N_1 := 1.52291 \quad N_2 := 3.48416$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2}$

Descriptions.

$bN_1 := \sqrt{1 + N_1^2} \quad be := \frac{1}{bN_1}$

$bf := \frac{N_1 \cdot be}{bN_1} \quad fh := N_2 - bf$

$fg := \frac{fh}{N_2} \quad ac := 1 - fg$

$cg := \sqrt{ac \cdot fg} \quad R_1 := \frac{cg}{fg}$

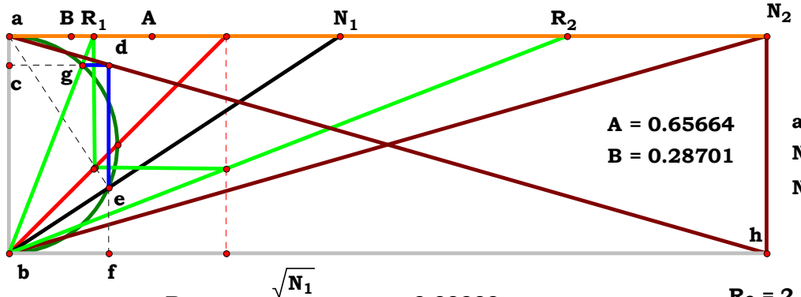
$R_1 = 0.38943$

Definitions.

$$R_1 - \frac{\sqrt{N_1}}{\sqrt{N_1^2 \cdot N_2 - N_1 + N_2}} = 0$$

$N_1 - \frac{1}{A} = 0 \quad N_2 - \frac{1}{B} = 0$

$$R_1 - \frac{\sqrt{A \cdot B}}{\sqrt{\left(A^2 - B \cdot A + 1\right)}} = 0$$



$ab = 1.00000$

$N_1 = 1.52291$

$N_2 = 3.48416$

$R_1 = 0.38943$

$$\frac{\sqrt{N_1}}{\sqrt{N_1^2 \cdot N_2 - N_1 + N_2}} = 0.38943$$

$$\frac{\sqrt{A \cdot B}}{\sqrt{A^2 - A \cdot B + 1}} = 0.38943$$

$$R_1 - \frac{\sqrt{N_1}}{\sqrt{N_1^2 \cdot N_2 - N_1 + N_2}} = 0.00000$$

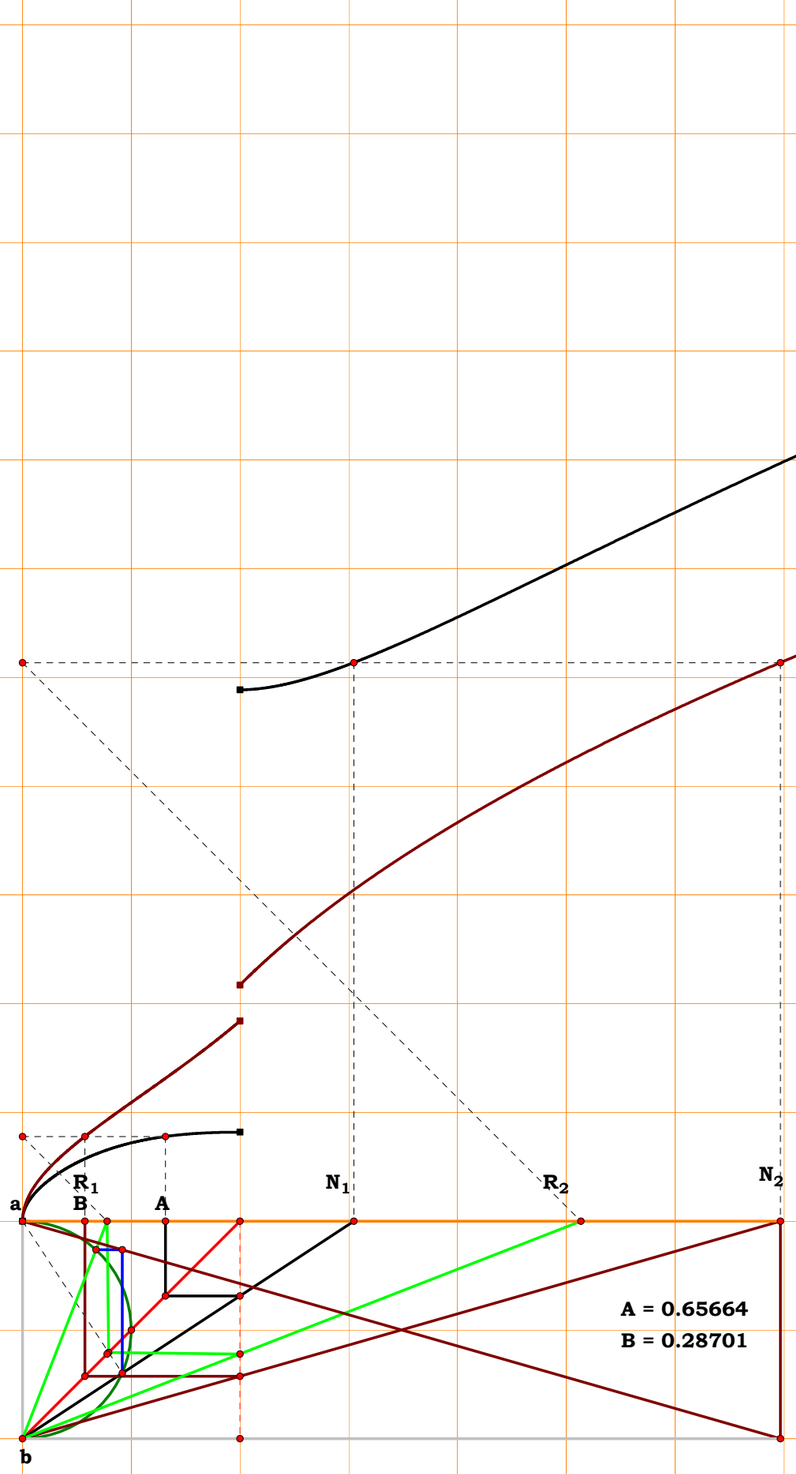
$$R_1 - \frac{\sqrt{A \cdot B}}{\sqrt{A^2 - A \cdot B + 1}} = 0.00000$$

$$\frac{\sqrt{A \cdot B}}{\sqrt{A^2 - A \cdot B + 1}} - \frac{\sqrt{N_1}}{\sqrt{N_1^2 \cdot N_2 - N_1 + N_2}} = 0.00000$$

$R_2 = 2.56786$

$$\frac{\sqrt{A^2 - A \cdot B + 1}}{\sqrt{A \cdot B}} = 2.56786$$

$$R_2 - \frac{\sqrt{A^2 - A \cdot B + 1}}{\sqrt{A \cdot B}} = 0.00000$$



A = 0.65664

B = 0.28701

ab = 1.00000

N_1 = 1.52291

N_2 = 3.48416

R_1 = 0.38943

$$\frac{\sqrt{N_1}}{\sqrt{(N_1^2 \cdot N_2 - N_1) + N_2}} = 0.38943$$

$$\frac{\sqrt{A \cdot B}}{\sqrt{(A^2 - A \cdot B) + 1}} = 0.38943$$

$$R_1 - \frac{\sqrt{N_1}}{\sqrt{(N_1^2 \cdot N_2 - N_1) + N_2}} = 0.00000$$

$$R_1 - \frac{\sqrt{A \cdot B}}{\sqrt{(A^2 - A \cdot B) + 1}} = 0.00000$$

$$\frac{\sqrt{A \cdot B}}{\sqrt{(A^2 - A \cdot B) + 1}} - \frac{\sqrt{N_1}}{\sqrt{(N_1^2 \cdot N_2 - N_1) + N_2}} = 0.00000$$

R_2 = 2.56786

$$\frac{\sqrt{(A^2 - A \cdot B) + 1}}{\sqrt{A \cdot B}} = 2.56786$$

$$R_2 - \frac{\sqrt{(A^2 - A \cdot B) + 1}}{\sqrt{A \cdot B}} = 0.00000$$

2SMT3R3

Given.

Unit. $ab := 1 \quad N_1 := 3.42154$

$N_2 := 1.65047 \quad N_3 := 2.26617$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2} \quad C := \frac{1}{N_3}$

Descriptions.

$bd := \frac{N_2}{N_1 + N_2} \quad ad := \frac{N_1}{N_1 + N_2}$

$df := \sqrt{bd \cdot ad} \quad aj := \frac{df}{bd} \quad ac := \frac{aj}{aj + N_3}$

$CE := \sqrt{ac \cdot (1 - ac)} \quad R_1 := \frac{CE}{ac}$

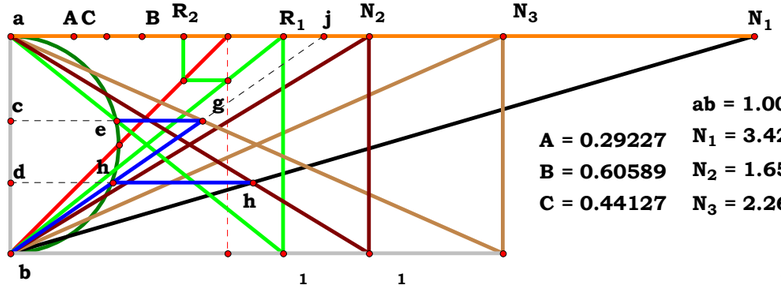
$R_1 = 1.254564 \quad R_2 := \frac{1}{R_1}$

Definitions.

$$R_1 - \frac{N_2 \cdot (N_1 \cdot N_3)^{\frac{1}{2}} \cdot (N_1 \cdot N_2)^{\frac{1}{4}}}{N_1 \cdot N_2} = 0$$

$N_1 - \frac{1}{A} = 0 \quad N_2 - \frac{1}{B} = 0 \quad N_3 - \frac{1}{C} = 0$

$$R_1 - \frac{A \cdot B}{B \cdot (A \cdot C)^{\frac{1}{2}} \cdot (A \cdot B)^{\frac{1}{4}}} = 0 \quad R_2 - \frac{B \cdot (A \cdot C)^{\frac{1}{2}} \cdot (A \cdot B)^{\frac{1}{4}}}{A \cdot B} = 0$$



$ab = 1.00000$

$A = 0.29227 \quad N_1 = 3.42154$

$B = 0.60589 \quad N_2 = 1.65047$

$C = 0.44127 \quad N_3 = 2.26617$

$R_1 = 1.25456$

$$\frac{N_2 \cdot (N_1 \cdot N_3)^{\frac{1}{2}} \cdot (N_1 \cdot N_2)^{\frac{1}{4}}}{N_1 \cdot N_2} = 1.25456$$

$$\frac{(A \cdot B)}{\left(B \cdot (A \cdot C)^{\frac{1}{2}} \cdot (A \cdot B)^{\frac{1}{4}}\right)} = 1.25456$$

$$R_1 - \frac{N_2 \cdot (N_1 \cdot N_3)^{\frac{1}{2}} \cdot (N_1 \cdot N_2)^{\frac{1}{4}}}{N_1 \cdot N_2} = 0.00000$$

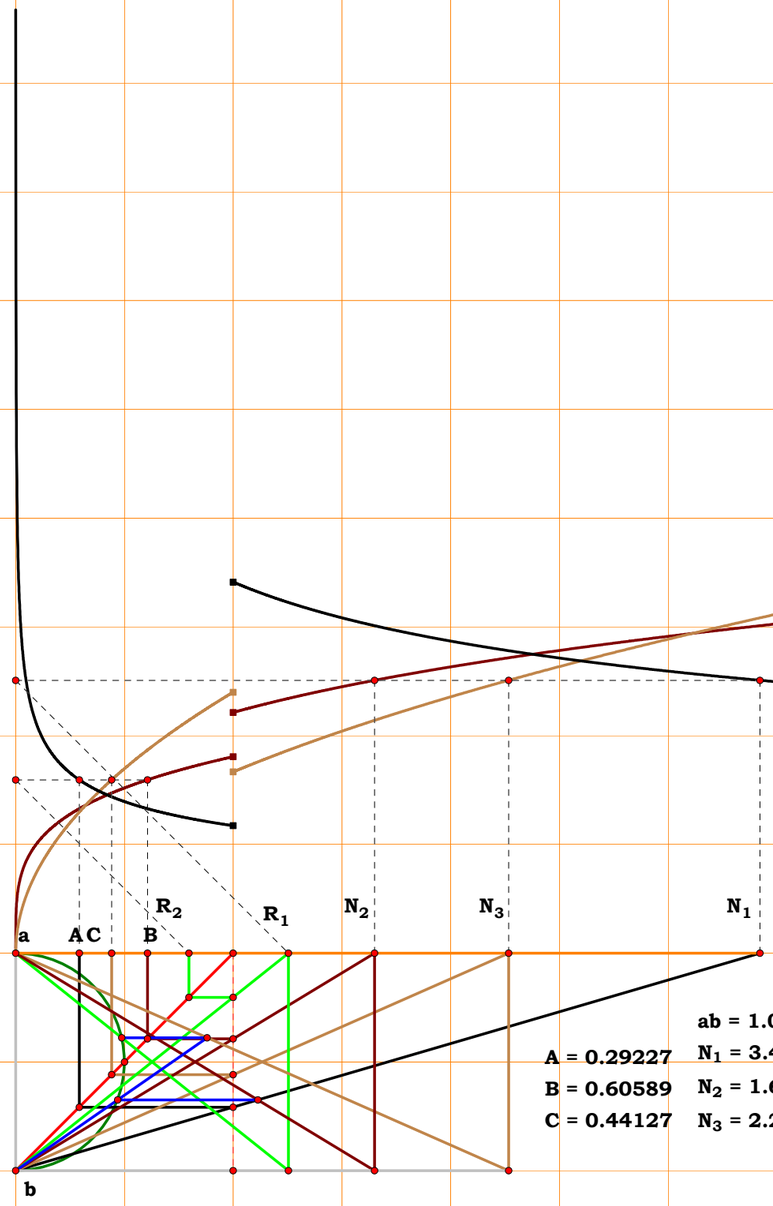
$$R_1 - \frac{(A \cdot B)}{\left(B \cdot (A \cdot C)^{\frac{1}{2}} \cdot (A \cdot B)^{\frac{1}{4}}\right)} = 0.00000$$

$$\frac{(A \cdot B)}{\left(B \cdot (A \cdot C)^{\frac{1}{2}} \cdot (A \cdot B)^{\frac{1}{4}}\right)} - \frac{N_2 \cdot (N_1 \cdot N_3)^{\frac{1}{2}} \cdot (N_1 \cdot N_2)^{\frac{1}{4}}}{N_1 \cdot N_2} = 0.00000$$

$R_2 = 0.79709$

$$\frac{\left(B \cdot (A \cdot C)^{\frac{1}{2}} \cdot (A \cdot B)^{\frac{1}{4}}\right)}{(A \cdot B)} = 0.79709$$

$$R_2 - \frac{\left(B \cdot (A \cdot C)^{\frac{1}{2}} \cdot (A \cdot B)^{\frac{1}{4}}\right)}{(A \cdot B)} = 0.00000$$



$ab = 1.00000$

$A = 0.29227$ $N_1 = 3.42154$

$B = 0.60589$ $N_2 = 1.65047$

$C = 0.44127$ $N_3 = 2.26617$

$R_1 = 1.25456$

$$\frac{N_2\cdot(N_1\cdot N_3)^{\frac{1}{2}}\cdot(N_1\cdot N_2)^{\frac{1}{4}}}{N_1\cdot N_2} = 1.25456$$

$$\frac{(A\cdot B)}{\left(B\cdot(A\cdot C)^{\frac{1}{2}}\cdot(A\cdot B)^{\frac{1}{4}}\right)} = 1.25456$$

$$R_1 - \frac{N_2\cdot(N_1\cdot N_3)^{\frac{1}{2}}\cdot(N_1\cdot N_2)^{\frac{1}{4}}}{N_1\cdot N_2} = 0.00000$$

$$R_1 - \frac{(A\cdot B)}{\left(B\cdot(A\cdot C)^{\frac{1}{2}}\cdot(A\cdot B)^{\frac{1}{4}}\right)} = 0.00000$$

$$\frac{(A\cdot B)}{\left(B\cdot(A\cdot C)^{\frac{1}{2}}\cdot(A\cdot B)^{\frac{1}{4}}\right)} - \frac{N_2\cdot(N_1\cdot N_3)^{\frac{1}{2}}\cdot(N_1\cdot N_2)^{\frac{1}{4}}}{N_1\cdot N_2} = 0.00000$$

$R_2 = 0.79709$

$$\frac{\left(B\cdot(A\cdot C)^{\frac{1}{2}}\cdot(A\cdot B)^{\frac{1}{4}}\right)}{(A\cdot B)} = 0.79709$$

$$R_2 - \frac{\left(B\cdot(A\cdot C)^{\frac{1}{2}}\cdot(A\cdot B)^{\frac{1}{4}}\right)}{(A\cdot B)} = 0.00000$$

2SMT3R4

Given.

Unit. $ab := 1$

$N_1 := 3.25819 \quad N_2 := 2.58176$

$N_3 := 1.48494 \quad N_4 := 1.62547$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2} \quad C := \frac{1}{N_3} \quad D := \frac{1}{N_4}$

Descriptions.

$be := \frac{N_2}{N_2 + N_1} \quad eh := \sqrt{be \cdot (1 - be)} \quad ak := \frac{eh}{be}$

$bd := \frac{N_3}{ak + N_3} \quad dg := \sqrt{bd \cdot (1 - bd)} \quad aj := \frac{dg}{bd}$

$bc := \frac{N_4}{aj + N_4} \quad cf := \sqrt{bc \cdot (1 - bc)} \quad R_1 := \frac{cf}{1 - bc}$

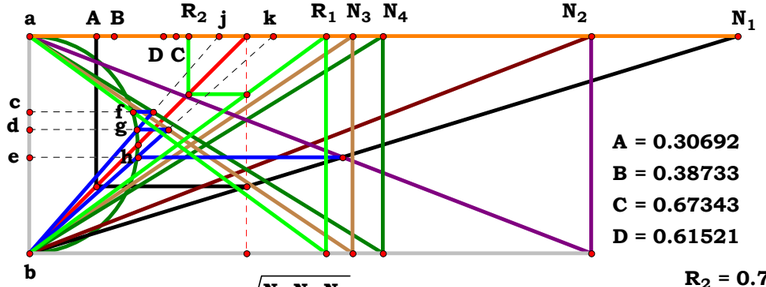
$R_1 = 1.367049 \quad R_2 := \frac{1}{R_1}$

Definitions.

$$R_1 - \frac{\sqrt{N_2 \cdot N_3 \cdot N_4}}{\left(N_2 \cdot N_3 \cdot \sqrt{N_1 \cdot N_2}\right)^{\frac{1}{4}}} = 0$$

$N_1 - \frac{1}{A} = 0 \quad N_2 - \frac{1}{B} = 0 \quad N_3 - \frac{1}{C} = 0 \quad N_4 - \frac{1}{D} = 0$

$$R_1 - \frac{(A \cdot B)^{\frac{1}{8}} \cdot (B \cdot C)^{\frac{1}{4}}}{\sqrt{B \cdot C \cdot D}} = 0 \qquad R_2 - \frac{\sqrt{B \cdot C \cdot D}}{(A \cdot B)^{\frac{1}{8}} \cdot (B \cdot C)^{\frac{1}{4}}} = 0$$



$A = 0.30692$
$B = 0.38733$
$C = 0.67343$
$D = 0.61521$

$ab = 1.00000$
$N_1 = 3.25819$
$N_2 = 2.58176$
$N_3 = 1.48494$
$N_4 = 1.62547$

$R_1 = 1.36705$

$$\frac{\sqrt{N_2 \cdot N_3 \cdot N_4}}{\left(N_2 \cdot N_3 \cdot \sqrt{N_1 \cdot N_2}\right)^{\frac{1}{4}}} = 1.36705$$

$$\frac{\left((A \cdot B)^{\frac{1}{8}} \cdot (B \cdot C)^{\frac{1}{4}}\right)}{\sqrt{B \cdot C \cdot D}} = 1.36705$$

$$R_1 - \frac{\sqrt{N_2 \cdot N_3 \cdot N_4}}{\left(N_2 \cdot N_3 \cdot \sqrt{N_1 \cdot N_2}\right)^{\frac{1}{4}}} = 0.00000$$

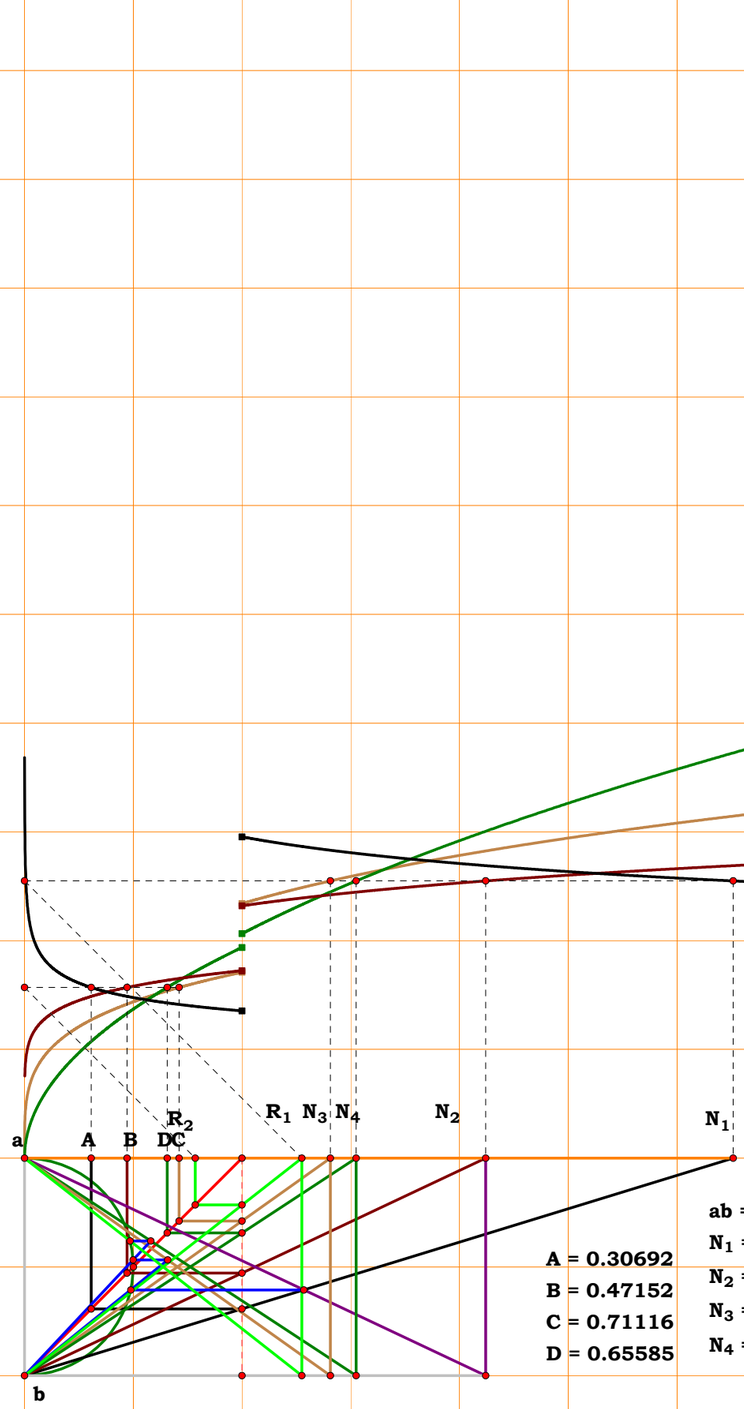
$$R_1 - \frac{\left((A \cdot B)^{\frac{1}{8}} \cdot (B \cdot C)^{\frac{1}{4}}\right)}{\sqrt{B \cdot C \cdot D}} = 0.00000$$

$$\frac{\left((A \cdot B)^{\frac{1}{8}} \cdot (B \cdot C)^{\frac{1}{4}}\right)}{\sqrt{B \cdot C \cdot D}} - \frac{\sqrt{N_2 \cdot N_3 \cdot N_4}}{\left(N_2 \cdot N_3 \cdot \sqrt{N_1 \cdot N_2}\right)^{\frac{1}{4}}} = 0.00000$$

$R_2 = 0.73150$

$$\frac{\sqrt{B \cdot C \cdot D}}{\left((A \cdot B)^{\frac{1}{8}} \cdot (B \cdot C)^{\frac{1}{4}}\right)} = 0.73150$$

$$R_2 - \frac{\sqrt{B \cdot C \cdot D}}{\left((A \cdot B)^{\frac{1}{8}} \cdot (B \cdot C)^{\frac{1}{4}}\right)} = 0.00000$$



$A = 0.30692$

$B = 0.47152$

$C = 0.71116$

$D = 0.65585$

$ab = 1.00000$

$N_1 = 3.25819$

$N_2 = 2.12082$

$N_3 = 1.40615$

$N_4 = 1.52474$

$R_1 = 1.27437$

$$\frac{\sqrt{N_2 \cdot N_3 \cdot N_4}}{\left(N_2 \cdot N_3 \cdot \sqrt{N_1 \cdot N_2}\right)^{\frac{1}{4}}} = 1.27437$$

$$\frac{\left((A \cdot B)^{\frac{1}{8}} \cdot (B \cdot C)^{\frac{1}{4}}\right)}{\sqrt{B \cdot C \cdot D}} = 1.27437$$

$$R_1 - \frac{\sqrt{N_2 \cdot N_3 \cdot N_4}}{\left(N_2 \cdot N_3 \cdot \sqrt{N_1 \cdot N_2}\right)^{\frac{1}{4}}} = 0.00000$$

$$R_1 - \frac{\left((A \cdot B)^{\frac{1}{8}} \cdot (B \cdot C)^{\frac{1}{4}}\right)}{\sqrt{B \cdot C \cdot D}} = 0.00000$$

$$\frac{\left((A \cdot B)^{\frac{1}{8}} \cdot (B \cdot C)^{\frac{1}{4}}\right)}{\sqrt{B \cdot C \cdot D}} - \frac{\sqrt{N_2 \cdot N_3 \cdot N_4}}{\left(N_2 \cdot N_3 \cdot \sqrt{N_1 \cdot N_2}\right)^{\frac{1}{4}}} = 0.00000$$

$R_2 = 0.78470$

$$\frac{\sqrt{B \cdot C \cdot D}}{\left((A \cdot B)^{\frac{1}{8}} \cdot (B \cdot C)^{\frac{1}{4}}\right)} = 0.78470$$

$$R_2 - \frac{\sqrt{B \cdot C \cdot D}}{\left((A \cdot B)^{\frac{1}{8}} \cdot (B \cdot C)^{\frac{1}{4}}\right)} = 0.00000$$

2SMT3R5

Given.

Unit. $ab := 1$

$N_1 := 2.74360 \quad N_2 := 1.99835$

$N_3 := 1.37955 \quad N_4 := 2.34347$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2} \quad C := \frac{1}{N_3} \quad D := \frac{1}{N_4}$

Descriptions.

$be := \frac{N_2}{N_1 + N_2} \quad eh := \sqrt{be \cdot (1 - be)} \quad ak := \frac{eh}{be}$

$bd := \frac{N_3}{ak + N_3} \quad dg := \sqrt{bd \cdot (1 - bd)} \quad aj := \frac{dg}{bd}$

$bc := \frac{N_4}{aj + N_4} \quad cf := \sqrt{bc \cdot (1 - bc)} \quad R_1 := \frac{cf}{bc}$

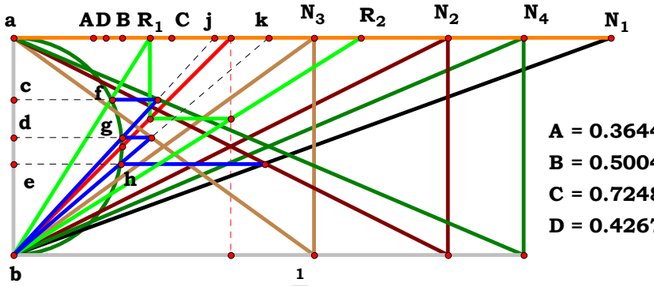
$R_1 = 0.627108 \quad R_2 := \frac{1}{R_1}$

Definitions.

$$R_1 - \frac{(N_1 \cdot N_2)^{\frac{1}{8}}}{(N_2 \cdot N_3 \cdot N_4^2)^{\frac{1}{4}}} = 0$$

$N_1 - \frac{1}{A} = 0 \quad N_2 - \frac{1}{B} = 0 \quad N_3 - \frac{1}{C} = 0 \quad N_4 - \frac{1}{D} = 0$

$$R_1 - \frac{(B \cdot C \cdot D^2)^{\frac{1}{4}}}{(A \cdot B)^{\frac{1}{8}}} = 0 \qquad R_2 - \frac{(A \cdot B)^{\frac{1}{8}}}{(B \cdot C \cdot D^2)^{\frac{1}{4}}} = 0$$



$A = 0.36448$
$B = 0.50041$
$C = 0.72487$
$D = 0.42672$

$$R_1 - \frac{(N_1 \cdot N_2)^{\frac{1}{8}}}{(N_2 \cdot N_3 \cdot N_4^2)^{\frac{1}{4}}} = 0.00000$$

$$R_1 - \frac{(B \cdot C \cdot D^2)^{\frac{1}{4}}}{(A \cdot B)^{\frac{1}{8}}} = 0.00000$$

$$\frac{(B \cdot C \cdot D^2)^{\frac{1}{4}}}{(A \cdot B)^{\frac{1}{8}}} - \frac{(N_1 \cdot N_2)^{\frac{1}{8}}}{(N_2 \cdot N_3 \cdot N_4^2)^{\frac{1}{4}}} = 0.00000$$

$R_1 = 0.62711$

$ab = 1.00000$
$N_1 = 2.74360$
$N_2 = 1.99835$
$N_3 = 1.37955$
$N_4 = 2.34347$

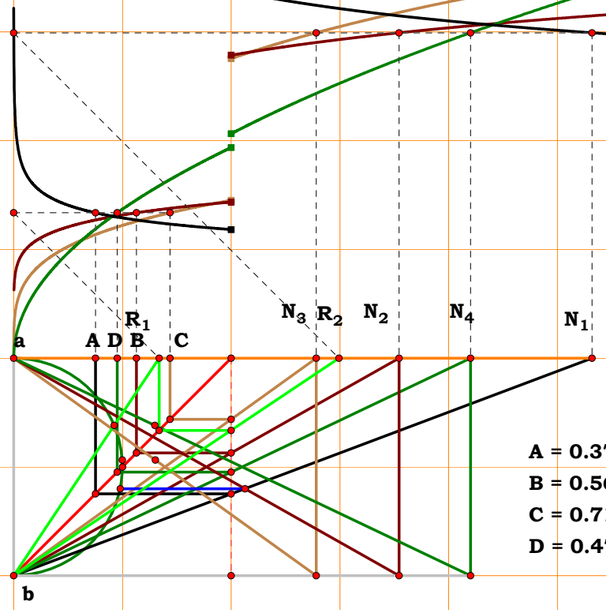
$$\frac{(N_1 \cdot N_2)^{\frac{1}{8}}}{(N_2 \cdot N_3 \cdot N_4^2)^{\frac{1}{4}}} = 0.62711$$

$$\frac{(B \cdot C \cdot D^2)^{\frac{1}{4}}}{(A \cdot B)^{\frac{1}{8}}} = 0.62711$$

$R_2 = 1.59462$

$$\frac{(A \cdot B)^{\frac{1}{8}}}{(B \cdot C \cdot D^2)^{\frac{1}{4}}} = 1.59462$$

$$R_2 - \frac{(A \cdot B)^{\frac{1}{8}}}{(B \cdot C \cdot D^2)^{\frac{1}{4}}} = 0.00000$$



A = 0.37610
B = 0.56428
C = 0.71907
D = 0.47607

ab = 1.00000
N_1 = 2.65890
N_2 = 1.77218
N_3 = 1.39069
N_4 = 2.10054

$$R_1 = 0.66842$$

$$\frac{(N_1 \cdot N_2)^{\frac{1}{8}}}{(N_2 \cdot N_3 \cdot N_4^2)^{\frac{1}{4}}} = 0.66842$$

$$\frac{(B \cdot C \cdot D^2)^{\frac{1}{4}}}{(A \cdot B)^{\frac{1}{8}}} = 0.66842$$

$$R_1 - \frac{(N_1 \cdot N_2)^{\frac{1}{8}}}{(N_2 \cdot N_3 \cdot N_4^2)^{\frac{1}{4}}} = 0.00000$$

$$R_1 - \frac{(B \cdot C \cdot D^2)^{\frac{1}{4}}}{(A \cdot B)^{\frac{1}{8}}} = 0.00000$$

$$\frac{(B \cdot C \cdot D^2)^{\frac{1}{4}}}{(A \cdot B)^{\frac{1}{8}}} - \frac{(N_1 \cdot N_2)^{\frac{1}{8}}}{(N_2 \cdot N_3 \cdot N_4^2)^{\frac{1}{4}}} = 0.00000$$

$$R_2 = 1.49606$$

$$\frac{(A \cdot B)^{\frac{1}{8}}}{(B \cdot C \cdot D^2)^{\frac{1}{4}}} = 1.49606$$

$$R_2 - \frac{(A \cdot B)^{\frac{1}{8}}}{(B \cdot C \cdot D^2)^{\frac{1}{4}}} = 0.00000$$

2SMT3R6

Descriptions.

Given.

Unit. $ab := 1 \quad N_1 := 2.93328$

$N_2 := 2.22444 \quad N_3 := 1.77739$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2} \quad C := \frac{1}{N_3}$

$bd := \frac{N_2}{N_1 + N_2} \quad df := \sqrt{bd \cdot (1 - bd)} \quad ag := \frac{df}{bd}$

$bc := \frac{N_3}{ag + N_3} \quad ce := \sqrt{bc \cdot (1 - bc)} \quad R_1 := \frac{ce}{bc}$

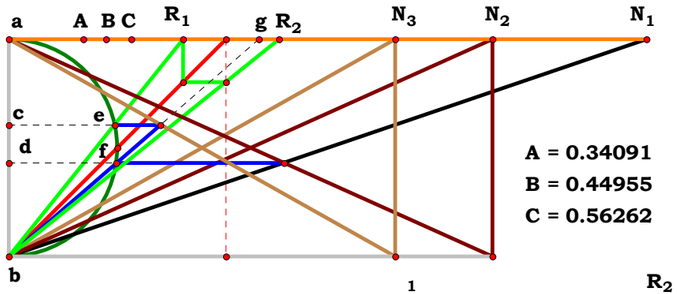
$R_1 = 0.803789 \quad R_2 := \frac{1}{R_1}$

Definitions.

$$R_1 - \frac{(N_1 \cdot N_2)^{\frac{1}{4}}}{(N_2 \cdot N_3)^{\frac{1}{2}}} = 0$$

$N_1 - \frac{1}{A} = 0 \quad N_2 - \frac{1}{B} = 0 \quad N_3 - \frac{1}{C} = 0$

$$R_1 - \frac{\sqrt{B \cdot C}}{(A \cdot B)^{\frac{1}{4}}} = 0 \quad R_2 - \frac{(A \cdot B)^{\frac{1}{4}}}{\sqrt{B \cdot C}} = 0$$



A = 0.34091
B = 0.44955
C = 0.56262

ab = 1.00000
N_1 = 2.93329
N_2 = 2.22444
N_3 = 1.77739

$R_1 = 0.80379$

$$\frac{(N_1 \cdot N_2)^{\frac{1}{4}}}{(N_2 \cdot N_3)^{\frac{1}{2}}} = 0.80379$$

$$\frac{\sqrt{B \cdot C}}{(A \cdot B)^{\frac{1}{4}}} = 0.80379$$

$$R_1 - \frac{(N_1 \cdot N_2)^{\frac{1}{4}}}{(N_2 \cdot N_3)^{\frac{1}{2}}} = 0.00000$$

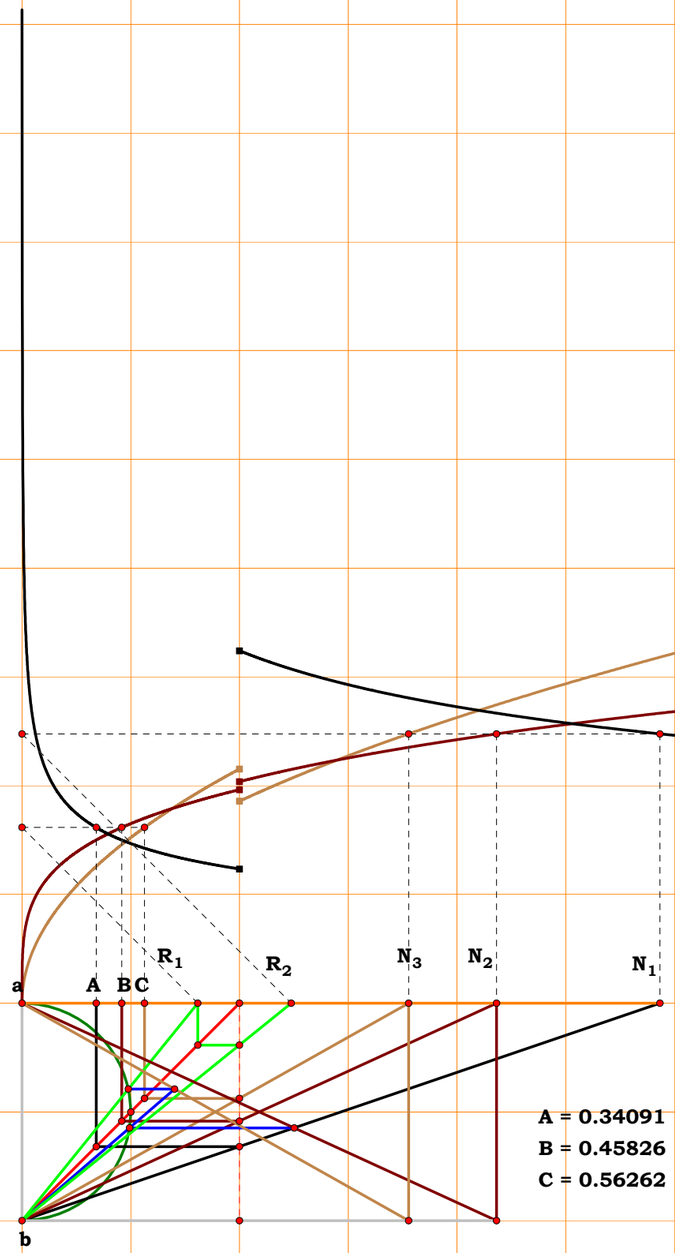
$$R_1 - \frac{\sqrt{B \cdot C}}{(A \cdot B)^{\frac{1}{4}}} = 0.00000$$

$$\frac{\sqrt{B \cdot C}}{(A \cdot B)^{\frac{1}{4}}} - \frac{(N_1 \cdot N_2)^{\frac{1}{4}}}{(N_2 \cdot N_3)^{\frac{1}{2}}} = 0.00000$$

$R_2 = 1.24411$

$$\frac{(A \cdot B)^{\frac{1}{4}}}{\sqrt{B \cdot C}} = 1.24411$$

$$R_2 - \frac{(A \cdot B)^{\frac{1}{4}}}{\sqrt{B \cdot C}} = 0.00000$$



$A = 0.34091$

$B = 0.45826$

$C = 0.56262$

$ab = 1.00000$

$N_1 = 2.93329$

$N_2 = 2.18217$

$N_3 = 1.77739$

$R_1 = 0.80765$

$$\frac{(N_1 \cdot N_2)^{\frac{1}{4}}}{(N_2 \cdot N_3)^{\frac{1}{2}}} = 0.80765$$

$$\frac{\sqrt{B \cdot C}}{(A \cdot B)^{\frac{1}{4}}} = 0.80765$$

$$R_1 - \frac{(N_1 \cdot N_2)^{\frac{1}{4}}}{(N_2 \cdot N_3)^{\frac{1}{2}}} = 0.00000$$

$$R_1 - \frac{\sqrt{B \cdot C}}{(A \cdot B)^{\frac{1}{4}}} = 0.00000$$

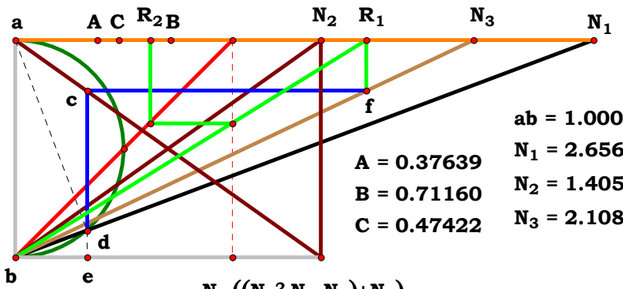
$$\frac{\sqrt{B \cdot C}}{(A \cdot B)^{\frac{1}{4}}} - \frac{(N_1 \cdot N_2)^{\frac{1}{4}}}{(N_2 \cdot N_3)^{\frac{1}{2}}} = 0.00000$$

$R_2 = 1.23815$

$$\frac{(A \cdot B)^{\frac{1}{4}}}{\sqrt{B \cdot C}} = 1.23815$$

$$R_2 - \frac{(A \cdot B)^{\frac{1}{4}}}{\sqrt{B \cdot C}} = 0.00000$$

2SMT3R7



ab = 1.00000
N1 = 2.65683
N2 = 1.40528
N3 = 2.10874

A = 0.37639
B = 0.71160
C = 0.47422

$R_1 = 1.61403$

$\frac{N_3\cdot((N_1^2\cdot N_2-N_1)+N_2)}{N_2\cdot(N_1^2+1)} = 1.61403$

$\frac{(A^2-A\cdot B)+1}{C\cdot(A^2+1)} = 1.61403$

Given.

Unit. $ab := 1 \quad N_1 := 2.65683$

$N_2 := 1.40528 \quad N_3 := 2.10874$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2} \quad C := \frac{1}{N_3}$

Descriptions.

$bN_1 := \sqrt{N_1^2 + 1} \quad bd := \frac{1}{bN_1} \quad be := N_1 \cdot \frac{bd}{bN_1}$

$ce := \frac{N_2 - be}{N_2} \quad R_1 := N_3 \cdot ce$

$R_1 = 1.614023 \quad R_2 := \frac{1}{R_1}$

Definitions.

$R_1 - \frac{N_3\cdot\left(N_1^2\cdot N_2 - N_1 + N_2\right)}{N_2\cdot\left(N_1^2+1\right)} = 0$

$N_1 - \frac{1}{A} = 0 \quad N_2 - \frac{1}{B} = 0 \quad N_3 - \frac{1}{C} = 0$

$R_1 - \frac{\left(A^2 - A\cdot B + 1\right)}{C\cdot\left(A^2+1\right)} = 0 \quad R_2 - \frac{C\cdot\left(A^2+1\right)}{\left(A^2 - A\cdot B + 1\right)} = 0$

$R_1 - \frac{N_3\cdot((N_1^2\cdot N_2-N_1)+N_2)}{N_2\cdot(N_1^2+1)} = 0.00000$

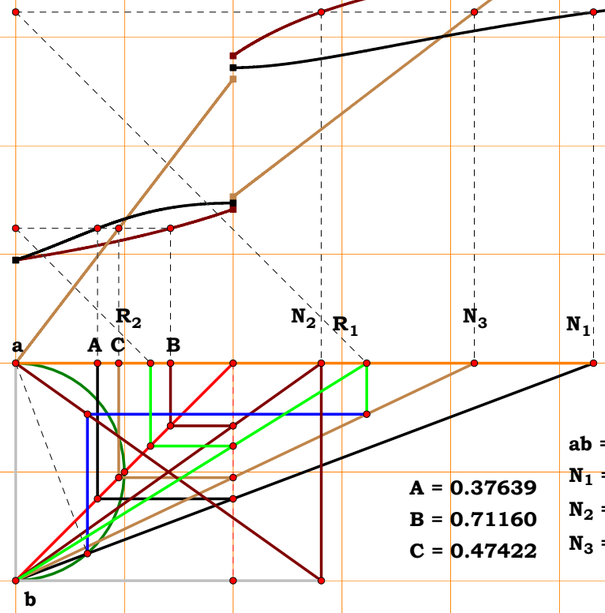
$R_1 - \frac{(A^2-A\cdot B)+1}{C\cdot(A^2+1)} = 0.00000$

$\frac{(A^2-A\cdot B)+1}{C\cdot(A^2+1)} - \frac{N_3\cdot((N_1^2\cdot N_2-N_1)+N_2)}{N_2\cdot(N_1^2+1)} = 0.00000$

$R_2 = 0.61957$

$\frac{C\cdot(A^2+1)}{(A^2-A\cdot B)+1} = 0.61957$

$R_2 - \frac{C\cdot(A^2+1)}{(A^2-A\cdot B)+1} = 0.00000$



$A = 0.37639$

$B = 0.71160$

$C = 0.47422$

$ab = 1.00000$

$N_1 = 2.65683$

$N_2 = 1.40528$

$N_3 = 2.10874$

$R_1 = 1.61403$

$$\frac{N_3\cdot((N_1^2\cdot N_2-N_1)+N_2)}{N_2\cdot(N_1^2+1)} = 1.61403$$

$$\frac{(A^2-A\cdot B)+1}{C\cdot(A^2+1)} = 1.61403$$

$$R_1-\frac{N_3\cdot((N_1^2\cdot N_2-N_1)+N_2)}{N_2\cdot(N_1^2+1)} = 0.00000$$

$$R_1-\frac{(A^2-A\cdot B)+1}{C\cdot(A^2+1)} = 0.00000$$

$$\frac{(A^2-A\cdot B)+1}{C\cdot(A^2+1)}-\frac{N_3\cdot((N_1^2\cdot N_2-N_1)+N_2)}{N_2\cdot(N_1^2+1)} = 0.00000$$

$R_2 = 0.61957$

$$\frac{C\cdot(A^2+1)}{(A^2-A\cdot B)+1} = 0.61957$$

$$R_2-\frac{C\cdot(A^2+1)}{(A^2-A\cdot B)+1} = 0.00000$$

2SMT3R8

Given.

Unit. $ab := 1$

$N_1 := 3.77979 \quad N_2 := 1.89657$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2}$

Descriptions.

$fg := \frac{N_2}{N_1 + N_2} \quad cd := \sqrt{fg \cdot (1 - fg)}$

$R_1 := \frac{cd}{fg}$

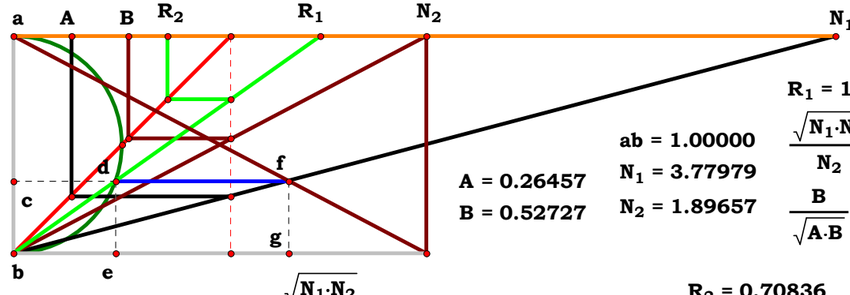
$R_1 = 1.411723 \quad R_2 := \frac{1}{R_1}$

Definitions.

$R_1 - \frac{(N_1 \cdot N_2)^{\frac{1}{2}}}{N_2} = 0$

$N_1 - \frac{1}{A} = 0 \quad N_2 - \frac{1}{B} = 0$

$R_1 - \frac{B}{\sqrt{A \cdot B}} = 0 \quad R_2 - \frac{\sqrt{A \cdot B}}{B} = 0$



$A = 0.26457$

$B = 0.52727$

$ab = 1.00000$

$N_1 = 3.77979$

$N_2 = 1.89657$

$R_1 = 1.41172$

$\frac{\sqrt{N_1 \cdot N_2}}{N_2} = 1.41172$

$\frac{B}{\sqrt{A \cdot B}} = 1.41172$

$R_1 - \frac{\sqrt{N_1 \cdot N_2}}{N_2} = 0.00000$

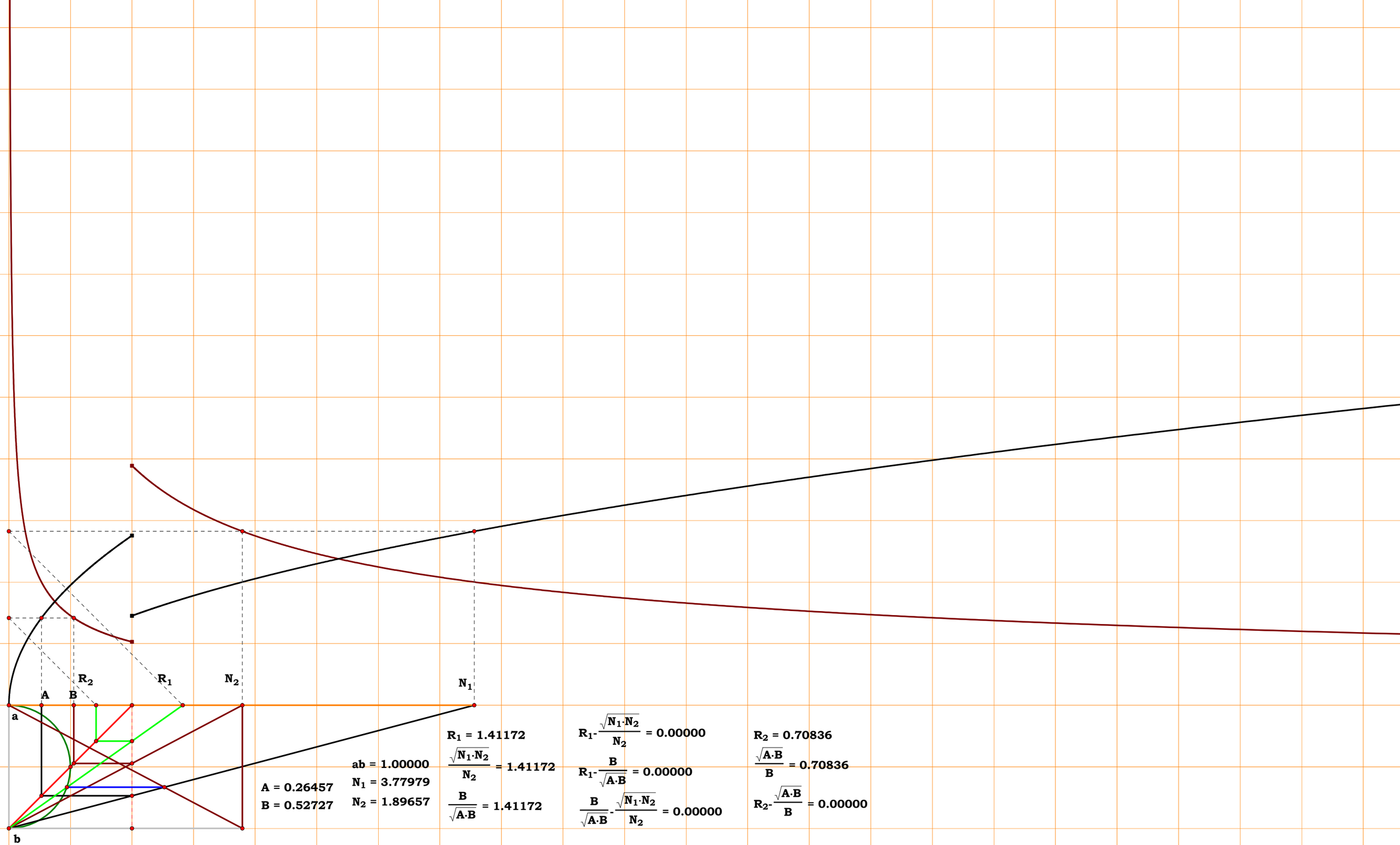
$R_1 - \frac{B}{\sqrt{A \cdot B}} = 0.00000$

$\frac{B}{\sqrt{A \cdot B}} - \frac{\sqrt{N_1 \cdot N_2}}{N_2} = 0.00000$

$R_2 = 0.70836$

$\frac{\sqrt{A \cdot B}}{B} = 0.70836$

$R_2 - \frac{\sqrt{A \cdot B}}{B} = 0.00000$



A = 0.26457

B = 0.52727

ab = 1.00000

N_1 = 3.77979

N_2 = 1.89657

R_1 = 1.41172

$\frac{\sqrt{N_1 \cdot N_2}}{N_2}$ = 1.41172

$\frac{B}{\sqrt{A \cdot B}}$ = 1.41172

$R_1 - \frac{\sqrt{N_1 \cdot N_2}}{N_2}$ = 0.00000

$R_1 - \frac{B}{\sqrt{A \cdot B}}$ = 0.00000

$\frac{B}{\sqrt{A \cdot B}} - \frac{\sqrt{N_1 \cdot N_2}}{N_2}$ = 0.00000

R_2 = 0.70836

$\frac{\sqrt{A \cdot B}}{B}$ = 0.70836

$R_2 - \frac{\sqrt{A \cdot B}}{B}$ = 0.00000

2SMT3R9

Given.

Unit. $ab := 1$ $N_1 := 1.52603$

$N_2 := 3.17336$ $N_3 := 2.19039$

$A := \frac{1}{N_1}$ $B := \frac{1}{N_2}$ $C := \frac{1}{N_3}$

Descriptions.

$bd := \frac{N_2}{N_1 + N_2}$ $df := \sqrt{bd \cdot (1 - bd)}$ $ac := \frac{df}{N_3}$

$cg := \sqrt{ac \cdot (1 - ac)}$ $R_1 := \frac{cg}{1 - ac}$

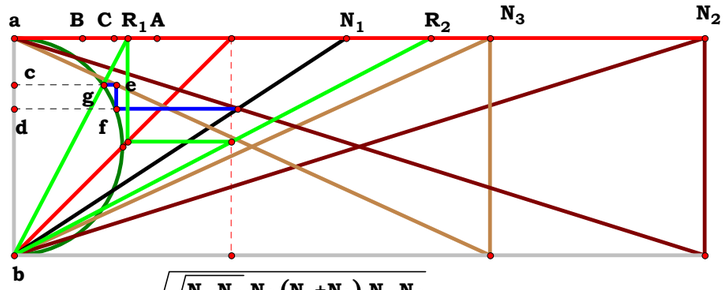
$R_1 = 0.521457$ $R_2 := \frac{1}{R_1}$

Definitions.

$$R_1 - \frac{\sqrt{\sqrt{N_1 \cdot N_2} \cdot N_3 \cdot (N_1 + N_2) - N_1 \cdot N_2}}{N_1 \cdot N_3 - \sqrt{N_1 \cdot N_2} + N_2 \cdot N_3} = 0$$

$N_1 - \frac{1}{A} = 0$ $N_2 - \frac{1}{B} = 0$ $N_3 - \frac{1}{C} = 0$

$$R_1 - \frac{A \cdot B \cdot C \cdot \sqrt{A \cdot B \cdot \left[(A + B) - C \cdot \sqrt{A \cdot B}\right]}}{\left[\sqrt{A \cdot B} \cdot (A + B) - A \cdot B \cdot C\right] \cdot \sqrt{A \cdot B \cdot C \cdot \sqrt{A \cdot B}}} = 0 \qquad R_2 - \frac{\left[\sqrt{A \cdot B} \cdot (A + B) - A \cdot B \cdot C\right] \cdot \sqrt{A \cdot B \cdot C \cdot \sqrt{A \cdot B}}}{A \cdot B \cdot C \cdot \sqrt{A \cdot B \cdot \left[(A + B) - C \cdot \sqrt{A \cdot B}\right]}} = 0$$



$A = 0.65529$
$B = 0.31512$
$C = 0.45654$

$$R_1 - \frac{\sqrt{\sqrt{N_1 \cdot N_2} \cdot N_3 \cdot (N_1 + N_2) - N_1 \cdot N_2}}{(N_1 \cdot N_3 - \sqrt{N_1 \cdot N_2}) + N_2 \cdot N_3} = 0.00000$$

$$R_1 - \frac{(A \cdot B \cdot C \cdot \sqrt{A \cdot B \cdot ((A+B) - C \cdot \sqrt{A \cdot B})})}{((\sqrt{A \cdot B} \cdot (A+B) - A \cdot B \cdot C) \cdot \sqrt{A \cdot B \cdot C \cdot \sqrt{A \cdot B}})} = 0.00000$$

$$\frac{(A \cdot B \cdot C \cdot \sqrt{A \cdot B \cdot ((A+B) - C \cdot \sqrt{A \cdot B})})}{((\sqrt{A \cdot B} \cdot (A+B) - A \cdot B \cdot C) \cdot \sqrt{A \cdot B \cdot C \cdot \sqrt{A \cdot B}})} - \frac{\sqrt{\sqrt{N_1 \cdot N_2} \cdot N_3 \cdot (N_1 + N_2) - N_1 \cdot N_2}}{(N_1 \cdot N_3 - \sqrt{N_1 \cdot N_2}) + N_2 \cdot N_3} = 0.00000$$

$R_1 = 0.52146$

$ab = 1.00000$
$N_1 = 1.52603$
$N_2 = 3.17336$
$N_3 = 2.19039$

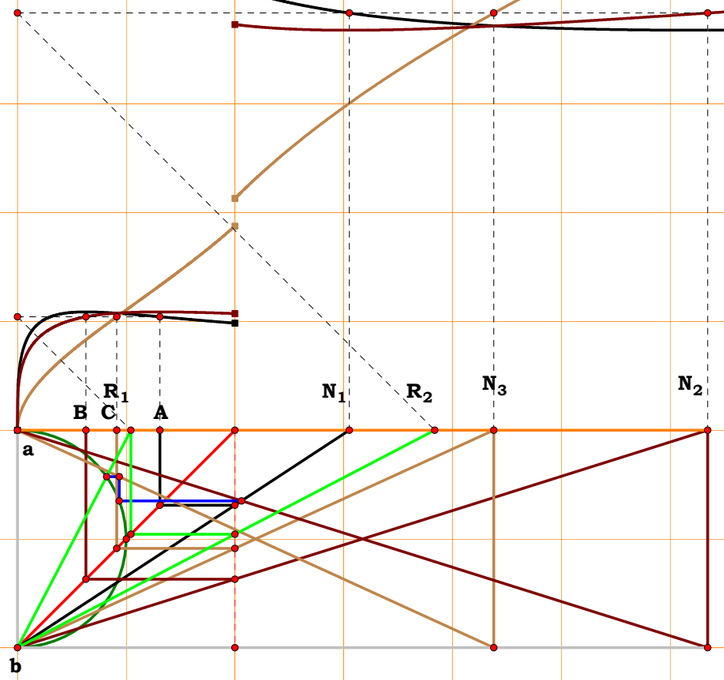
$$\frac{\sqrt{\sqrt{N_1 \cdot N_2} \cdot N_3 \cdot (N_1 + N_2) - N_1 \cdot N_2}}{(N_1 \cdot N_3 - \sqrt{N_1 \cdot N_2}) + N_2 \cdot N_3} = 0.52146$$

$$\frac{(A \cdot B \cdot C \cdot \sqrt{A \cdot B \cdot ((A+B) - C \cdot \sqrt{A \cdot B})})}{((\sqrt{A \cdot B} \cdot (A+B) - A \cdot B \cdot C) \cdot \sqrt{A \cdot B \cdot C \cdot \sqrt{A \cdot B}})} = 0.52146$$

$R_2 = 1.91770$

$$\frac{((\sqrt{A \cdot B} \cdot (A+B) - A \cdot B \cdot C) \cdot \sqrt{A \cdot B \cdot C \cdot \sqrt{A \cdot B}})}{(A \cdot B \cdot C \cdot \sqrt{A \cdot B \cdot ((A+B) - C \cdot \sqrt{A \cdot B})})} = 1.91770$$

$$R_2 - \frac{((\sqrt{A \cdot B} \cdot (A+B) - A \cdot B \cdot C) \cdot \sqrt{A \cdot B \cdot C \cdot \sqrt{A \cdot B}})}{(A \cdot B \cdot C \cdot \sqrt{A \cdot B \cdot ((A+B) - C \cdot \sqrt{A \cdot B})})} = 0.00000$$



A = 0.65529
B = 0.31512
C = 0.45654

$$R_1 - \frac{\sqrt{\sqrt{N_1 \cdot N_2} \cdot N_3 \cdot (N_1 + N_2) - N_1 \cdot N_2}}{(N_1 \cdot N_3 - \sqrt{N_1 \cdot N_2}) + N_2 \cdot N_3} = 0.00000$$

$$R_1 - \frac{(A \cdot B \cdot C \cdot \sqrt{A \cdot B \cdot ((A+B) - C \cdot \sqrt{A \cdot B})})}{((\sqrt{A \cdot B} \cdot (A+B) - A \cdot B \cdot C) \cdot \sqrt{A \cdot B \cdot C \cdot \sqrt{A \cdot B}})} = 0.00000$$

$$\frac{(A \cdot B \cdot C \cdot \sqrt{A \cdot B \cdot ((A+B) - C \cdot \sqrt{A \cdot B})})}{((\sqrt{A \cdot B} \cdot (A+B) - A \cdot B \cdot C) \cdot \sqrt{A \cdot B \cdot C \cdot \sqrt{A \cdot B}})} - \frac{\sqrt{\sqrt{N_1 \cdot N_2} \cdot N_3 \cdot (N_1 + N_2) - N_1 \cdot N_2}}{(N_1 \cdot N_3 - \sqrt{N_1 \cdot N_2}) + N_2 \cdot N_3} = 0.00000$$

$R_1 = 0.52146$

ab = 1.00000
N_1 = 1.52603
N_2 = 3.17336
N_3 = 2.19039

$$\frac{\sqrt{\sqrt{N_1 \cdot N_2} \cdot N_3 \cdot (N_1 + N_2) - N_1 \cdot N_2}}{(N_1 \cdot N_3 - \sqrt{N_1 \cdot N_2}) + N_2 \cdot N_3} = 0.52146$$

$$\frac{(A \cdot B \cdot C \cdot \sqrt{A \cdot B \cdot ((A+B) - C \cdot \sqrt{A \cdot B})})}{((\sqrt{A \cdot B} \cdot (A+B) - A \cdot B \cdot C) \cdot \sqrt{A \cdot B \cdot C \cdot \sqrt{A \cdot B}})} = 0.52146$$

$R_2 = 1.91770$

$$\frac{((\sqrt{A \cdot B} \cdot (A+B) - A \cdot B \cdot C) \cdot \sqrt{A \cdot B \cdot C \cdot \sqrt{A \cdot B}})}{(A \cdot B \cdot C \cdot \sqrt{A \cdot B \cdot ((A+B) - C \cdot \sqrt{A \cdot B})})} = 1.91770$$

$$R_2 - \frac{((\sqrt{A \cdot B} \cdot (A+B) - A \cdot B \cdot C) \cdot \sqrt{A \cdot B \cdot C \cdot \sqrt{A \cdot B}})}{(A \cdot B \cdot C \cdot \sqrt{A \cdot B \cdot ((A+B) - C \cdot \sqrt{A \cdot B})})} = 0.00000$$

2SMT3R10

Given.

Unit. $ab := 1$

$N_1 := 2.10269 \quad N_2 := 1.53799$

$N_3 := 3.01318$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2} \quad C := \frac{1}{N_3}$

Descriptions.

$bN_1 := \sqrt{N_1^2 + 1} \quad bd := \frac{1}{bN_1} \quad be := \frac{N_1 \cdot bd}{bN_1}$

$fN_3 := \frac{be}{N_2} \quad R_1 := \frac{N_3}{1 - fN_3}$

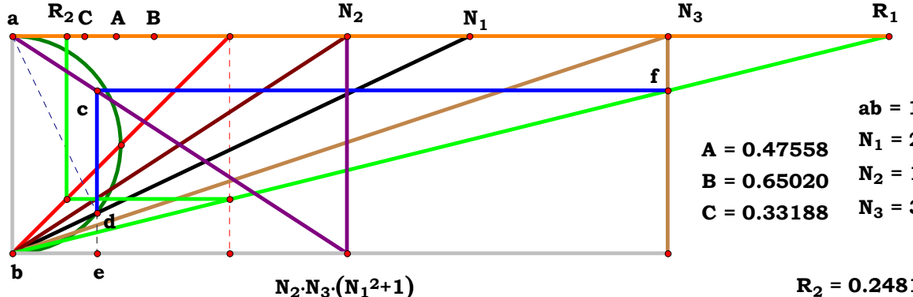
$R_1 = 4.029308 \quad R_2 := \frac{1}{R_1}$

Definitions.

$R_1 - \frac{N_2 \cdot N_3 \cdot \left(N_1^2 + 1\right)}{N_1^2 \cdot N_2 - N_1 + N_2} = 0$

$N_1 - \frac{1}{A} = 0 \quad N_2 - \frac{1}{B} = 0 \quad N_3 - \frac{1}{C} = 0$

$R_1 - \frac{\left(A^2 + 1\right)}{C \cdot \left(A^2 - B \cdot A + 1\right)} = 0 \quad R_2 - \frac{C \cdot \left(A^2 - B \cdot A + 1\right)}{\left(A^2 + 1\right)} = 0$



$A = 0.47558$
$B = 0.65020$
$C = 0.33188$

$R_1 = 4.02931$

$ab = 1.00000 \quad \frac{N_2 \cdot N_3 \cdot (N_1^2+1)}{(N_1^2 \cdot N_2 - N_1) + N_2} = 4.02931$

$N_1 = 2.10269 \quad \frac{(A^2+1)}{(C \cdot ((A^2 - A \cdot B)+1))} = 4.02931$

$N_2 = 1.53799$

$N_3 = 3.01318$

$R_1 - \frac{N_2 \cdot N_3 \cdot (N_1^2+1)}{(N_1^2 \cdot N_2 - N_1) + N_2} = 0.00000$

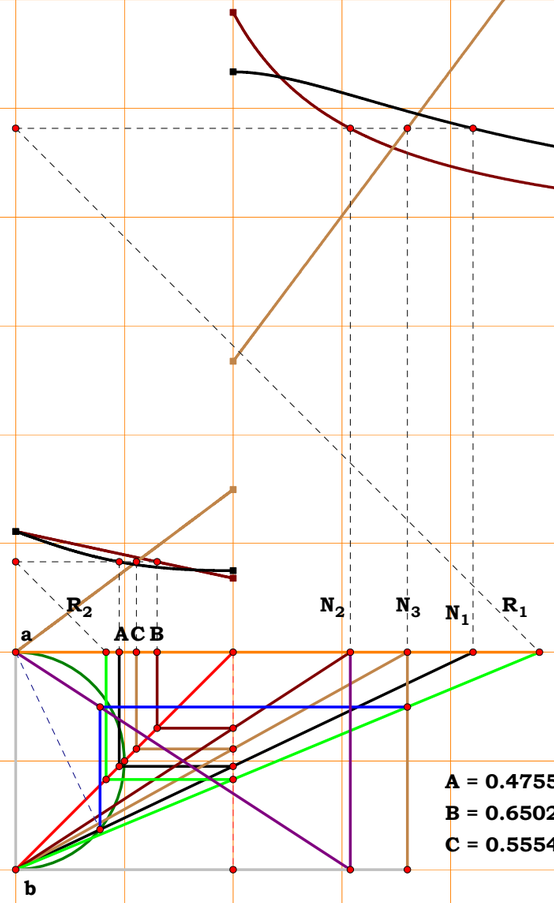
$R_1 - \frac{(A^2+1)}{(C \cdot ((A^2 - A \cdot B)+1))} = 0.00000$

$\frac{(A^2+1)}{(C \cdot ((A^2 - A \cdot B)+1))} - \frac{N_2 \cdot N_3 \cdot (N_1^2+1)}{(N_1^2 \cdot N_2 - N_1) + N_2} = 0.00000$

$R_2 = 0.24818$

$\frac{(C \cdot ((A^2 - A \cdot B)+1))}{(A^2+1)} = 0.24818$

$R_2 - \frac{(C \cdot ((A^2 - A \cdot B)+1))}{(A^2+1)} = 0.00000$



$A = 0.47558$

$B = 0.65020$

$C = 0.55540$

$ab = 1.00000$

$N_1 = 2.10269$

$N_2 = 1.53799$

$N_3 = 1.80052$

$R_1 = 2.40771$

$$\frac{N_2 \cdot N_3 \cdot (N_1^2+1)}{(N_1^2 \cdot N_2 - N_1)+N_2} = 2.40771$$

$$\frac{(A^2+1)}{(C \cdot ((A^2 - A \cdot B)+1))} = 2.40771$$

$$R_1 - \frac{N_2 \cdot N_3 \cdot (N_1^2+1)}{(N_1^2 \cdot N_2 - N_1)+N_2} = 0.00000$$

$$R_1 - \frac{(A^2+1)}{(C \cdot ((A^2 - A \cdot B)+1))} = 0.00000$$

$$\frac{(A^2+1)}{(C \cdot ((A^2 - A \cdot B)+1))} - \frac{N_2 \cdot N_3 \cdot (N_1^2+1)}{(N_1^2 \cdot N_2 - N_1)+N_2} = 0.00000$$

$R_2 = 0.41533$

$$\frac{(C \cdot ((A^2 - A \cdot B)+1))}{(A^2+1)} = 0.41533$$

$$R_2 - \frac{(C \cdot ((A^2 - A \cdot B)+1))}{(A^2+1)} = 0.00000$$

2SMT3R11

Given.

Unit. $ab := 1$

$N_1 := 1.90071 \quad N_2 := 3.62952$

$N_3 := 2.25061 \quad N_4 := 1.28209$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2} \quad C := \frac{1}{N_3} \quad D := \frac{1}{N_4}$

Descriptions.

$bc := \frac{N_2}{N_1 + N_2} \quad ce := \sqrt{bc \cdot (1 - bc)}$

$fN_4 := \frac{ce}{N_3} \quad R_1 := \frac{N_4}{1 - fN_4}$

$R_1 = 1.625012 \quad R_2 := \frac{1}{R_1}$

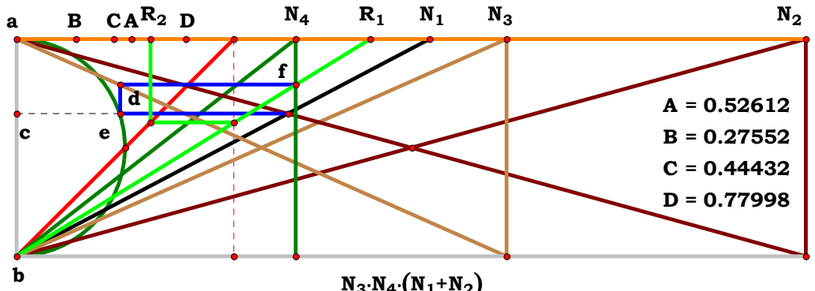
Definitions.

$R_1 - \frac{N_3 \cdot N_4 \cdot (N_1 + N_2)}{N_3 \cdot (N_1 + N_2) - \sqrt{N_1 \cdot N_2}} = 0$

$N_1 - \frac{1}{A} = 0 \quad N_2 - \frac{1}{B} = 0$

$N_3 - \frac{1}{C} = 0 \quad N_4 - \frac{1}{D} = 0$

$R_1 - \frac{(A + B) \cdot \sqrt{A \cdot B}}{D \cdot \left[\sqrt{A \cdot B} \cdot (A + B) - A \cdot B \cdot C\right]} = 0 \quad R_2 - \frac{D \cdot \left[\sqrt{A \cdot B} \cdot (A + B) - A \cdot B \cdot C\right]}{(A + B) \cdot \sqrt{A \cdot B}} = 0$



A = 0.52612
B = 0.27552
C = 0.44432
D = 0.77998

ab = 1.00000
N_1 = 1.90071
N_2 = 3.62953
N_3 = 2.25061
N_4 = 1.28209

$R_1 = 1.62501$

$\frac{N_3 \cdot N_4 \cdot (N_1 + N_2)}{N_3 \cdot (N_1 + N_2) - \sqrt{N_1 \cdot N_2}} = 1.62501$

$\frac{((A+B) \cdot \sqrt{A \cdot B})}{(D \cdot (\sqrt{A \cdot B} \cdot (A+B) - A \cdot B \cdot C))} = 1.62501$

$R_1 - \frac{N_3 \cdot N_4 \cdot (N_1 + N_2)}{N_3 \cdot (N_1 + N_2) - \sqrt{N_1 \cdot N_2}} = 0.00000$

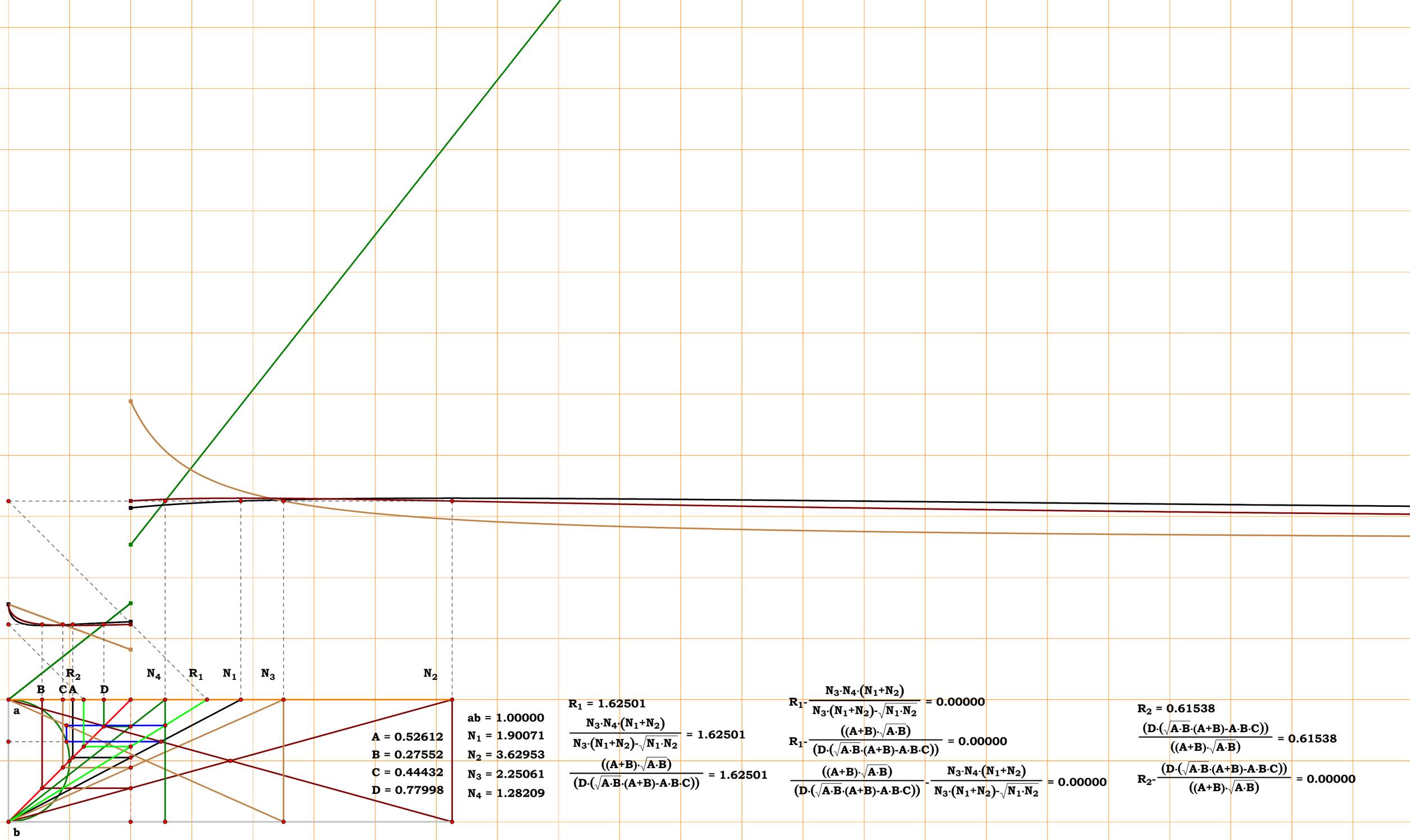
$R_1 - \frac{((A+B) \cdot \sqrt{A \cdot B})}{(D \cdot (\sqrt{A \cdot B} \cdot (A+B) - A \cdot B \cdot C))} = 0.00000$

$\frac{((A+B) \cdot \sqrt{A \cdot B})}{(D \cdot (\sqrt{A \cdot B} \cdot (A+B) - A \cdot B \cdot C))} - \frac{N_3 \cdot N_4 \cdot (N_1 + N_2)}{N_3 \cdot (N_1 + N_2) - \sqrt{N_1 \cdot N_2}} = 0.00000$

$R_2 = 0.61538$

$\frac{(D \cdot (\sqrt{A \cdot B} \cdot (A+B) - A \cdot B \cdot C))}{((A+B) \cdot \sqrt{A \cdot B})} = 0.61538$

$R_2 - \frac{(D \cdot (\sqrt{A \cdot B} \cdot (A+B) - A \cdot B \cdot C))}{((A+B) \cdot \sqrt{A \cdot B})} = 0.00000$



A = 0.52612
B = 0.27552
C = 0.44432
D = 0.77998

ab = 1.00000
N_1 = 1.90071
N_2 = 3.62953
N_3 = 2.25061
N_4 = 1.28209

$R_1 = 1.62501$

$$\frac{N_3 \cdot N_4 \cdot (N_1+N_2)}{N_3 \cdot (N_1+N_2) - \sqrt{N_1 \cdot N_2}} = 1.62501$$

$$\frac{((A+B) \cdot \sqrt{A \cdot B})}{(D \cdot (\sqrt{A \cdot B \cdot (A+B) - A \cdot B \cdot C}))} = 1.62501$$

$$R_1 - \frac{N_3 \cdot N_4 \cdot (N_1+N_2)}{N_3 \cdot (N_1+N_2) - \sqrt{N_1 \cdot N_2}} = 0.00000$$

$$R_1 - \frac{((A+B) \cdot \sqrt{A \cdot B})}{(D \cdot (\sqrt{A \cdot B \cdot (A+B) - A \cdot B \cdot C}))} = 0.00000$$

$$\frac{((A+B) \cdot \sqrt{A \cdot B})}{(D \cdot (\sqrt{A \cdot B \cdot (A+B) - A \cdot B \cdot C}))} - \frac{N_3 \cdot N_4 \cdot (N_1+N_2)}{N_3 \cdot (N_1+N_2) - \sqrt{N_1 \cdot N_2}} = 0.00000$$

$R_2 = 0.61538$

$$\frac{(D \cdot (\sqrt{A \cdot B \cdot (A+B) - A \cdot B \cdot C}))}{((A+B) \cdot \sqrt{A \cdot B})} = 0.61538$$

$$R_2 - \frac{(D \cdot (\sqrt{A \cdot B \cdot (A+B) - A \cdot B \cdot C}))}{((A+B) \cdot \sqrt{A \cdot B})} = 0.00000$$

2SMT4R0

Given.

Unit. $ab := 1$ $N_1 := 2.46754$

$N_2 := 1.92097$ $N_3 := 1.28674$

$A := \frac{1}{N_1}$ $B := \frac{1}{N_2}$ $C := \frac{1}{N_3}$

Descriptions.

$bN_1 := \sqrt{N_1^2 + 1}$ $bd := \frac{1}{bN_1}$ $be := \frac{N_1 \cdot bd}{bN_1}$

$ce := \frac{be}{N_3}$ $bj := \frac{N_2}{1 - ce}$ $aj := \sqrt{1 + bj^2}$

$af := \frac{1}{aj}$ $R_1 := \frac{bj \cdot af}{aj}$

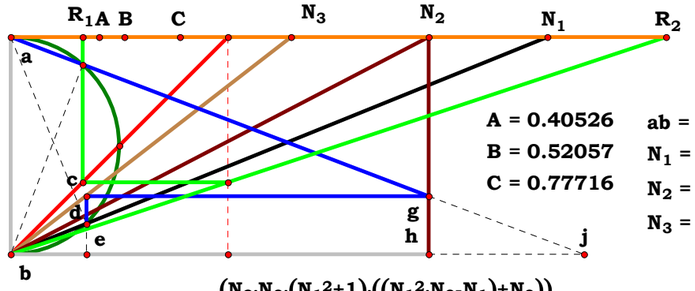
$R_1 = 0.331885$ $R_2 := \frac{1}{R_1}$

Definitions.

$$R_1 - \frac{N_2 \cdot N_3 \cdot \left(N_1^2 + 1\right) \cdot \left(N_1^2 \cdot N_3 - N_1 + N_3\right)}{N_1^2 + N_3^2 \cdot \left(N_1^2 + 1\right)^2 \cdot \left(N_2^2 + 1\right) - 2 \cdot N_1 \cdot N_3 \cdot \left(N_1^2 + 1\right)} = 0$$

$N_1 - \frac{1}{A} = 0$ $N_2 - \frac{1}{B} = 0$ $N_3 - \frac{1}{C} = 0$

$$R_1 - \frac{B \cdot \left(A^2 + 1\right) \cdot \left(A^2 - C \cdot A + 1\right)}{\left(A^2 + 1\right)^2 + B^2 \cdot \left(A^2 - C \cdot A + 1\right)^2} = 0 \qquad R_2 - \frac{\left(A^2 + 1\right)^2 + B^2 \cdot \left(A^2 - C \cdot A + 1\right)^2}{B \cdot \left(A^2 + 1\right) \cdot \left(A^2 - C \cdot A + 1\right)} = 0$$



A = 0.40526
B = 0.52057
C = 0.77716

ab = 1.00000
N_1 = 2.46754
N_2 = 1.92097
N_3 = 1.28674

$R_1 = 0.33188$

$$\frac{(N_2 \cdot N_3 \cdot (N_1^2+1) \cdot ((N_1^2 \cdot N_3 - N_1) + N_3))}{((N_1^2+N_3^2 \cdot (N_1^2+1)^2 \cdot (N_2^2+1)) - 2 \cdot N_1 \cdot N_3 \cdot (N_1^2+1))} = 0.33188$$

$$\frac{(B \cdot (A^2+1) \cdot ((A^2 - A \cdot C)+1))}{((A^2+1)^2 + B^2 \cdot ((A^2 - A \cdot C)+1)^2)} = 0.33188$$

$$R_1 - \frac{(N_2 \cdot N_3 \cdot (N_1^2+1) \cdot ((N_1^2 \cdot N_3 - N_1) + N_3))}{((N_1^2+N_3^2 \cdot (N_1^2+1)^2 \cdot (N_2^2+1)) - 2 \cdot N_1 \cdot N_3 \cdot (N_1^2+1))} = 0.00000$$

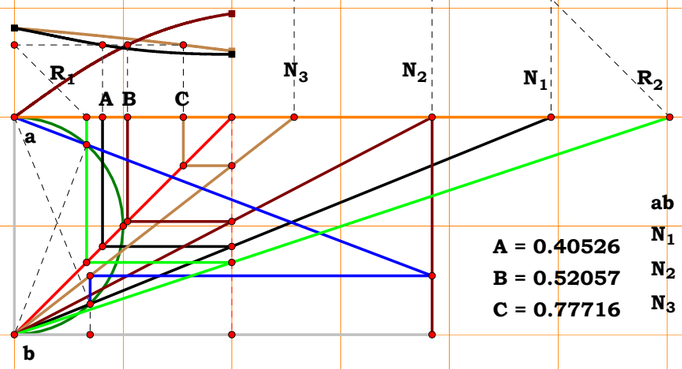
$$R_1 - \frac{(B \cdot (A^2+1) \cdot ((A^2 - A \cdot C)+1))}{((A^2+1)^2 + B^2 \cdot ((A^2 - A \cdot C)+1)^2)} = 0.00000$$

$$\frac{(B \cdot (A^2+1) \cdot ((A^2 - A \cdot C)+1))}{((A^2+1)^2 + B^2 \cdot ((A^2 - A \cdot C)+1)^2)} - \frac{(N_2 \cdot N_3 \cdot (N_1^2+1) \cdot ((N_1^2 \cdot N_3 - N_1) + N_3))}{((N_1^2+N_3^2 \cdot (N_1^2+1)^2 \cdot (N_2^2+1)) - 2 \cdot N_1 \cdot N_3 \cdot (N_1^2+1))} = 0.00000$$

$R_2 = 3.01309$

$$\frac{((A^2+1)^2 + B^2 \cdot ((A^2 - A \cdot C)+1)^2)}{(B \cdot (A^2+1) \cdot ((A^2 - A \cdot C)+1))} = 3.01309$$

$$R_2 - \frac{((A^2+1)^2 + B^2 \cdot ((A^2 - A \cdot C)+1)^2)}{(B \cdot (A^2+1) \cdot ((A^2 - A \cdot C)+1))} = 0.00000$$



A = 0.40526
B = 0.52057
C = 0.77716

ab = 1.00000
N_1 = 2.46754
N_2 = 1.92097
N_3 = 1.28674

R_1 = 0.33188

$$\frac{(N_2 \cdot N_3 \cdot (N_1^2+1) \cdot ((N_1^2 \cdot N_3 - N_1) + N_3))}{((N_1^2+N_3^2 \cdot (N_1^2+1)^2 \cdot (N_2^2+1)) - 2 \cdot N_1 \cdot N_3 \cdot (N_1^2+1))} = 0.33188$$

$$\frac{(B \cdot (A^2+1) \cdot ((A^2-A \cdot C)+1))}{((A^2+1)^2+B^2 \cdot ((A^2-A \cdot C)+1)^2)} = 0.33188$$

R_2 = 3.01309

$$\frac{((A^2+1)^2+B^2 \cdot ((A^2-A \cdot C)+1)^2)}{(B \cdot (A^2+1) \cdot ((A^2-A \cdot C)+1))} = 3.01309$$

$$R_2 - \frac{((A^2+1)^2+B^2 \cdot ((A^2-A \cdot C)+1)^2)}{(B \cdot (A^2+1) \cdot ((A^2-A \cdot C)+1))} = 0.00000$$

$$R_1 - \frac{(N_2 \cdot N_3 \cdot (N_1^2+1) \cdot ((N_1^2 \cdot N_3 - N_1) + N_3))}{((N_1^2+N_3^2 \cdot (N_1^2+1)^2 \cdot (N_2^2+1)) - 2 \cdot N_1 \cdot N_3 \cdot (N_1^2+1))} = 0.00000$$

$$R_1 - \frac{(B \cdot (A^2+1) \cdot ((A^2-A \cdot C)+1))}{((A^2+1)^2+B^2 \cdot ((A^2-A \cdot C)+1)^2)} = 0.00000$$

$$\frac{(B \cdot (A^2+1) \cdot ((A^2-A \cdot C)+1))}{((A^2+1)^2+B^2 \cdot ((A^2-A \cdot C)+1)^2)} - \frac{(N_2 \cdot N_3 \cdot (N_1^2+1) \cdot ((N_1^2 \cdot N_3 - N_1) + N_3))}{((N_1^2+N_3^2 \cdot (N_1^2+1)^2 \cdot (N_2^2+1)) - 2 \cdot N_1 \cdot N_3 \cdot (N_1^2+1))} = 0.00000$$

2SMT4R1

Given.

Unit. $ab := 1$

$N_1 := 3.06991 \quad N_2 := 1.27132$

$N_3 := 1.13998 \quad N_4 := 4.07189$

$$A := \frac{1}{N_1} \quad B := \frac{1}{N_2} \quad C := \frac{1}{N_3} \quad D := \frac{1}{N_4}$$

Descriptions.

$$ce := N_3 \cdot \frac{N_2}{N_1} \qquad bc := \frac{1}{2} - \sqrt{\left(\frac{1}{2}\right)^2 - ce^2}$$

$$bf := \frac{ce}{1 - bc} \qquad R_1 := \frac{N_4 \cdot bf}{bf + N_4}$$

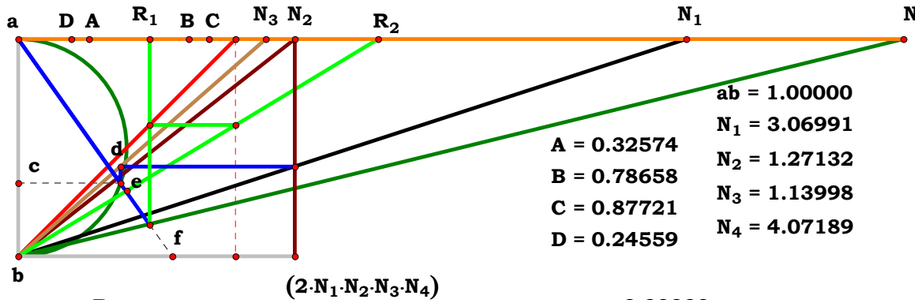
$R_1 = 0.604743 \qquad R_2 := \frac{1}{R_1}$

Definitions.

$$R_1 - \frac{2 \cdot N_1 \cdot N_2 \cdot N_3 \cdot N_4}{N_1 \cdot N_4 \cdot \sqrt{N_1^2 - 4 \cdot N_2^2 \cdot N_3^2} + N_1 \cdot (N_1 \cdot N_4 + 2 \cdot N_2 \cdot N_3)} = 0$$

$N_1 - \frac{1}{A} = 0 \qquad N_2 - \frac{1}{B} = 0 \qquad N_3 - \frac{1}{C} = 0 \qquad N_4 - \frac{1}{D} = 0$

$$R_1 - \frac{2 \cdot A}{\sqrt{B^2 \cdot C^2 - 4 \cdot A^2} + (2 \cdot A \cdot D + B \cdot C)} = 0 \qquad R_2 - \frac{\sqrt{B^2 \cdot C^2 - 4 \cdot A^2} + (2 \cdot A \cdot D + B \cdot C)}{2 \cdot A} = 0$$



A = 0.32574
B = 0.78658
C = 0.87721
D = 0.24559

ab = 1.00000
N1 = 3.06991
N2 = 1.27132
N3 = 1.13998
N4 = 4.07189

$R_1 = 0.60474$

$$\frac{(2 \cdot N_1 \cdot N_2 \cdot N_3 \cdot N_4)}{(N_1 \cdot N_4 \cdot \sqrt{N_1^2 - 4 \cdot N_2^2 \cdot N_3^2} + N_1 \cdot (N_1 \cdot N_4 + 2 \cdot N_2 \cdot N_3))} = 0.60474$$

$$\frac{(2 \cdot A)}{(\sqrt{B^2 \cdot C^2 - 4 \cdot A^2} + 2 \cdot A \cdot D + B \cdot C)} = 0.60474$$

$$R_1 - \frac{(2 \cdot N_1 \cdot N_2 \cdot N_3 \cdot N_4)}{(N_1 \cdot N_4 \cdot \sqrt{N_1^2 - 4 \cdot N_2^2 \cdot N_3^2} + N_1 \cdot (N_1 \cdot N_4 + 2 \cdot N_2 \cdot N_3))} = 0.00000$$

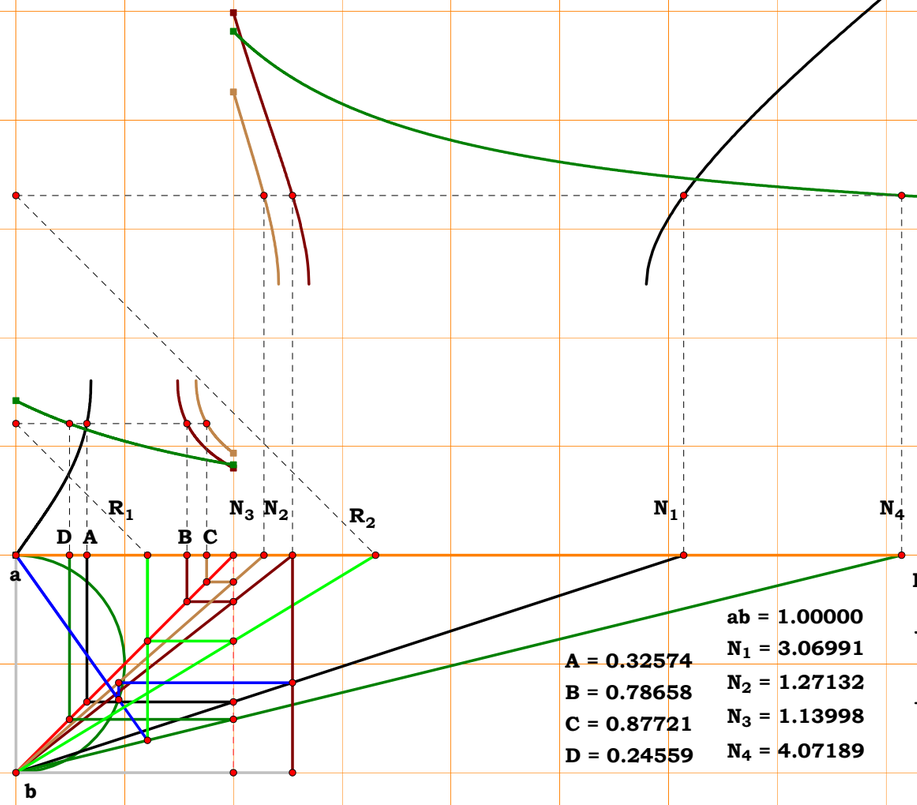
$$R_1 - \frac{(2 \cdot A)}{(\sqrt{B^2 \cdot C^2 - 4 \cdot A^2} + 2 \cdot A \cdot D + B \cdot C)} = 0.00000$$

$$\frac{(2 \cdot A)}{(\sqrt{B^2 \cdot C^2 - 4 \cdot A^2} + 2 \cdot A \cdot D + B \cdot C)} - \frac{(2 \cdot N_1 \cdot N_2 \cdot N_3 \cdot N_4)}{(N_1 \cdot N_4 \cdot \sqrt{N_1^2 - 4 \cdot N_2^2 \cdot N_3^2} + N_1 \cdot (N_1 \cdot N_4 + 2 \cdot N_2 \cdot N_3))} = 0.00000$$

$R_2 = 1.65360$

$$\frac{(\sqrt{B^2 \cdot C^2 - 4 \cdot A^2} + 2 \cdot A \cdot D + B \cdot C)}{(2 \cdot A)} = 1.65360$$

$$R_2 - \frac{(\sqrt{B^2 \cdot C^2 - 4 \cdot A^2} + 2 \cdot A \cdot D + B \cdot C)}{(2 \cdot A)} = 0.00000$$



A = 0.32574
B = 0.78658
C = 0.87721
D = 0.24559

ab = 1.00000
N_1 = 3.06991
N_2 = 1.27132
N_3 = 1.13998
N_4 = 4.07189

$$R_1 = 0.60474$$

$$\frac{(2\cdot N_1\cdot N_2\cdot N_3\cdot N_4)}{(N_1\cdot N_4\cdot\sqrt{N_1^2-4\cdot N_2^2\cdot N_3^2+N_1\cdot(N_1\cdot N_4+2\cdot N_2\cdot N_3)})} = 0.60474$$

$$\frac{(2\cdot A)}{(\sqrt{B^2\cdot C^2-4\cdot A^2}+2\cdot A\cdot D+B\cdot C)} = 0.60474$$

$$R_2 = 1.65360$$

$$\frac{(\sqrt{B^2\cdot C^2-4\cdot A^2}+2\cdot A\cdot D+B\cdot C)}{(2\cdot A)} = 1.65360$$

$$R_2-\frac{(\sqrt{B^2\cdot C^2-4\cdot A^2}+2\cdot A\cdot D+B\cdot C)}{(2\cdot A)} = 0.00000$$

$$R_1-\frac{(2\cdot N_1\cdot N_2\cdot N_3\cdot N_4)}{(N_1\cdot N_4\cdot\sqrt{N_1^2-4\cdot N_2^2\cdot N_3^2+N_1\cdot(N_1\cdot N_4+2\cdot N_2\cdot N_3)})} = 0.00000$$

$$R_1-\frac{(2\cdot A)}{(\sqrt{B^2\cdot C^2-4\cdot A^2}+2\cdot A\cdot D+B\cdot C)} = 0.00000$$

$$\frac{(2\cdot A)}{(\sqrt{B^2\cdot C^2-4\cdot A^2}+2\cdot A\cdot D+B\cdot C)}-\frac{(2\cdot N_1\cdot N_2\cdot N_3\cdot N_4)}{(N_1\cdot N_4\cdot\sqrt{N_1^2-4\cdot N_2^2\cdot N_3^2+N_1\cdot(N_1\cdot N_4+2\cdot N_2\cdot N_3)})} = 0.00000$$

2SMT4R2

Given.

Unit. $ab := 1 \quad N_1 := 1.58183$

$N_2 := 1.93003 \quad N_3 := 1.21238$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2} \quad C := \frac{1}{N_3}$

Descriptions.

$bN_1 := \sqrt{N_1^{\,2} + 1} \quad be := \frac{1}{bN_1}$

$bf := \frac{N_1 \cdot be}{bN_1} \quad df := \frac{bf}{N_3}$

$bj := \frac{N_2}{1 - df} \quad R_1 := \frac{1}{bj}$

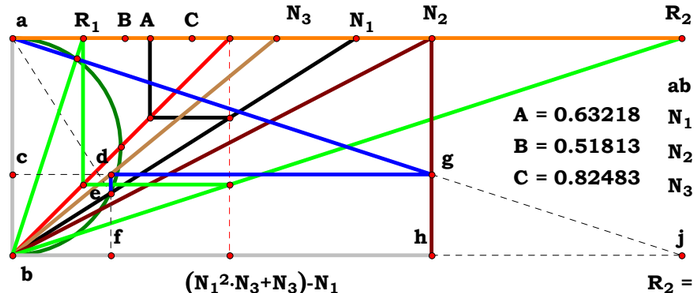
$R_1 = 0.3251 \quad R_2 := \frac{1}{R_1}$

Definitions.

$R_1 - \frac{N_1^{\,2} \cdot N_3 + N_3 - N_1}{N_1^{\,2} \cdot N_2 \cdot N_3 + N_2 \cdot N_3} = 0$

$N_1 - \frac{1}{A} = 0 \quad N_2 - \frac{1}{B} = 0 \quad N_3 - \frac{1}{C} = 0$

$R_1 - \frac{B \cdot \left(A^2 - C \cdot A + 1\right)}{A^2 + 1} = 0 \qquad R_2 - \frac{A^2 + 1}{B \cdot \left(A^2 - C \cdot A + 1\right)} = 0$



ab = 1.00000
A = 0.63218
B = 0.51813
C = 0.82483
N1 = 1.58183
N2 = 1.93003
N3 = 1.21238

$R_1 = 0.32510$

$\frac{(N_1^{\,2} \cdot N_3 + N_3) - N_1}{N_1^{\,2} \cdot N_2 \cdot N_3 + N_2 \cdot N_3} = 0.32510$

$\frac{B \cdot ((A^2 - A \cdot C) + 1)}{A^2 + 1} = 0.32510$

$R_1 - \frac{(N_1^{\,2} \cdot N_3 + N_3) - N_1}{N_1^{\,2} \cdot N_2 \cdot N_3 + N_2 \cdot N_3} = 0.00000$

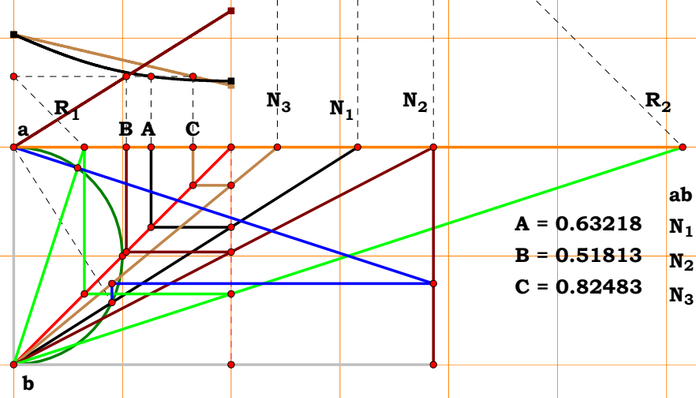
$R_1 - \frac{B \cdot ((A^2 - A \cdot C) + 1)}{A^2 + 1} = 0.00000$

$\frac{B \cdot ((A^2 - A \cdot C) + 1)}{A^2 + 1} - \frac{(N_1^{\,2} \cdot N_3 + N_3) - N_1}{N_1^{\,2} \cdot N_2 \cdot N_3 + N_2 \cdot N_3} = 0.00000$

$R_2 = 3.07599$

$\frac{A^2 + 1}{B \cdot ((A^2 - A \cdot C) + 1)} = 3.07599$

$R_2 - \frac{A^2 + 1}{B \cdot ((A^2 - A \cdot C) + 1)} = 0.00000$



$A = 0.63218$
$B = 0.51813$
$C = 0.82483$

$ab = 1.00000$
$N_1 = 1.58183$
$N_2 = 1.93003$
$N_3 = 1.21238$

$R_1 = 0.32510$

$$\frac{(N_1^2 \cdot N_3 + N_3) - N_1}{N_1^2 \cdot N_2 \cdot N_3 + N_2 \cdot N_3} = 0.32510$$

$$\frac{B \cdot ((A^2 - A \cdot C) + 1)}{A^2 + 1} = 0.32510$$

$$R_1 - \frac{(N_1^2 \cdot N_3 + N_3) - N_1}{N_1^2 \cdot N_2 \cdot N_3 + N_2 \cdot N_3} = 0.00000$$

$$R_1 - \frac{B \cdot ((A^2 - A \cdot C) + 1)}{A^2 + 1} = 0.00000$$

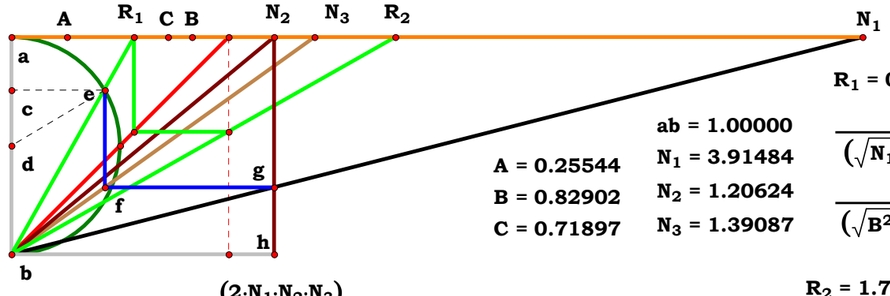
$$\frac{B \cdot ((A^2 - A \cdot C) + 1)}{A^2 + 1} - \frac{(N_1^2 \cdot N_3 + N_3) - N_1}{N_1^2 \cdot N_2 \cdot N_3 + N_2 \cdot N_3} = 0.00000$$

$R_2 = 3.07599$

$$\frac{A^2 + 1}{B \cdot ((A^2 - A \cdot C) + 1)} = 3.07599$$

$$R_2 - \frac{A^2 + 1}{B \cdot ((A^2 - A \cdot C) + 1)} = 0.00000$$

2SMT4R3



ab = 1.00000
N1 = 3.91484
N2 = 1.20624
N3 = 1.39087

A = 0.25544
B = 0.82902
C = 0.71897

$R_1 = 0.56570$

$\frac{(2\cdot N_1\cdot N_2\cdot N_3)}{\left(\sqrt{N_1{}^4-4\cdot N_1{}^2\cdot N_2{}^2\cdot N_3{}^2}+N_1{}^2\right)} = 0.56570$

$\frac{(2\cdot A)}{\left(\sqrt{B^2\cdot C^2-4\cdot A^2}+B\cdot C\right)} = 0.56570$

$R_1 - \frac{(2\cdot N_1\cdot N_2\cdot N_3)}{\left(\sqrt{N_1{}^4-4\cdot N_1{}^2\cdot N_2{}^2\cdot N_3{}^2}+N_1{}^2\right)} = 0.00000$

$R_1 - \frac{(2\cdot A)}{\left(\sqrt{B^2\cdot C^2-4\cdot A^2}+B\cdot C\right)} = 0.00000$

$\frac{(2\cdot A)}{\left(\sqrt{B^2\cdot C^2-4\cdot A^2}+B\cdot C\right)} - \frac{(2\cdot N_1\cdot N_2\cdot N_3)}{\left(\sqrt{N_1{}^4-4\cdot N_1{}^2\cdot N_2{}^2\cdot N_3{}^2}+N_1{}^2\right)} = 0.00000$

$R_2 = 1.76772$

$\frac{\left(\sqrt{B^2\cdot C^2-4\cdot A^2}+B\cdot C\right)}{(2\cdot A)} = 1.76772$

$R_2 - \frac{\left(\sqrt{B^2\cdot C^2-4\cdot A^2}+B\cdot C\right)}{(2\cdot A)} = 0.00000$

Given.

Unit. $ab := 1$

$N_1 := 3.91484$

$N_2 := 1.20624 \quad N_3 := 1.39087$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2} \quad C := \frac{1}{N_3}$

Descriptions.

$gh := \frac{N_2}{N_1} \quad ce := N_3\cdot gh \quad cd := \sqrt{\left(\frac{1}{2}\right)^2 - ce^2}$

$be := \frac{1}{2} + cd \quad R_1 := \frac{ce}{be}$

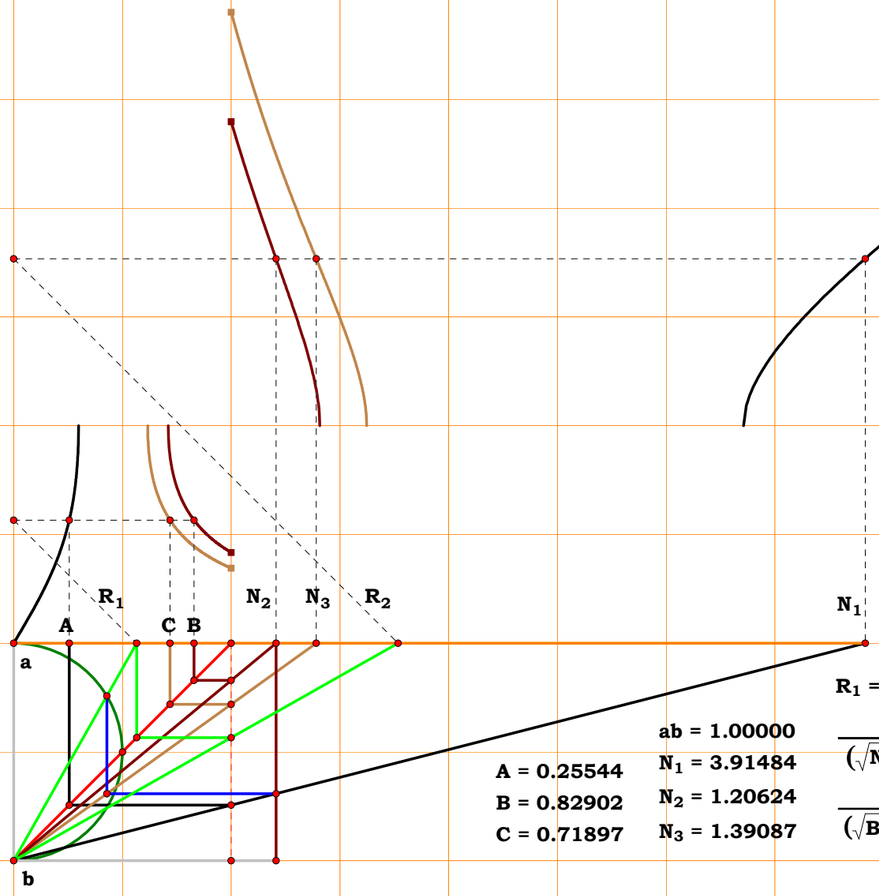
$R_1 = 0.565699 \quad R_2 := \frac{1}{R_1}$

Definitions.

$R_1 - \frac{2\cdot N_1\cdot N_2\cdot N_3}{\sqrt{\left(N_1{}^4 - 4\cdot N_1{}^2\cdot N_2{}^2\cdot N_3{}^2\right)} + N_1{}^2} = 0$

$N_1 - \frac{1}{A} = 0 \quad N_2 - \frac{1}{B} = 0 \quad N_3 - \frac{1}{C} = 0$

$R_1 - \frac{2\cdot A}{\sqrt{B^2\cdot C^2 - 4\cdot A^2} + B\cdot C} = 0 \quad R_2 - \frac{\sqrt{B^2\cdot C^2 - 4\cdot A^2} + B\cdot C}{2\cdot A} = 0$



$A = 0.25544$
$B = 0.82902$
$C = 0.71897$

$ab = 1.00000$
$N_1 = 3.91484$
$N_2 = 1.20624$
$N_3 = 1.39087$

$R_1 = 0.56570$

$$\frac{(2\cdot N_1\cdot N_2\cdot N_3)}{\left(\sqrt{N_1{}^4-4\cdot N_1{}^2\cdot N_2{}^2\cdot N_3{}^2}+N_1{}^2\right)} = 0.56570$$

$$\frac{(2\cdot A)}{\left(\sqrt{B^2\cdot C^2-4\cdot A^2}+B\cdot C\right)} = 0.56570$$

$$R_1-\frac{(2\cdot N_1\cdot N_2\cdot N_3)}{\left(\sqrt{N_1{}^4-4\cdot N_1{}^2\cdot N_2{}^2\cdot N_3{}^2}+N_1{}^2\right)} = 0.00000$$

$$R_1-\frac{(2\cdot A)}{\left(\sqrt{B^2\cdot C^2-4\cdot A^2}+B\cdot C\right)} = 0.00000$$

$$\frac{(2\cdot A)}{\left(\sqrt{B^2\cdot C^2-4\cdot A^2}+B\cdot C\right)}-\frac{(2\cdot N_1\cdot N_2\cdot N_3)}{\left(\sqrt{N_1{}^4-4\cdot N_1{}^2\cdot N_2{}^2\cdot N_3{}^2}+N_1{}^2\right)} = 0.00000$$

$R_2 = 1.76772$

$$\frac{\left(\sqrt{B^2\cdot C^2-4\cdot A^2}+B\cdot C\right)}{(2\cdot A)} = 1.76772$$

$$R_2-\frac{\left(\sqrt{B^2\cdot C^2-4\cdot A^2}+B\cdot C\right)}{(2\cdot A)} = 0.00000$$

2SMT4R4

Given.

Unit. $ab := 1$

$N_1 := 2.69911 \quad N_2 := 1.32136$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2}$

Descriptions.

$bN_1 := \sqrt{N_1^{\,2} + 1} \qquad be := \frac{1}{bN_1}$

$bf := \frac{N_1 \cdot be}{bN_1} \qquad df := \frac{bf}{N_2}$

$eg := \sqrt{df \cdot (1 - df)} \qquad R_1 := \frac{eg}{df}$

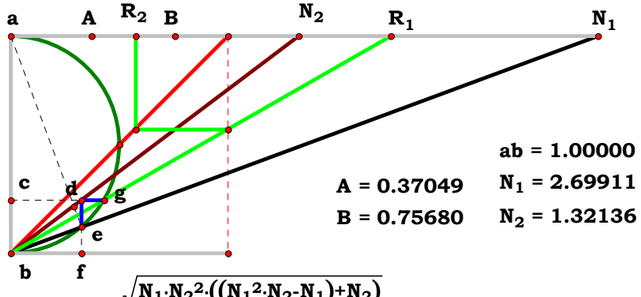
$R_1 = 1.748156 \qquad R_2 := \frac{1}{R_1}$

Definitions.

$$R_1 - \frac{\sqrt{N_1 \cdot N_2^{\,2} \cdot \left(N_1^{\,2} \cdot N_2 - N_1 + N_2\right)}}{N_1 \cdot N_2} = 0$$

$N_1 - \frac{1}{A} = 0 \qquad N_2 - \frac{1}{B} = 0$

$$R_1 - \frac{A \cdot B \cdot \sqrt{A^2 - B \cdot A + 1}}{\sqrt{A^3 \cdot B^3}} = 0 \qquad R_2 - \frac{\sqrt{A^3 \cdot B^3}}{A \cdot B \cdot \sqrt{A^2 - B \cdot A + 1}} = 0$$



ab = 1.00000

A = 0.37049 N_1 = 2.69911

B = 0.75680 N_2 = 1.32136

$$R_1 - \frac{\sqrt{N_1 \cdot N_2^{\,2} \cdot ((N_1^{\,2} \cdot N_2 - N_1) + N_2)}}{N_1 \cdot N_2} = 0.00000$$

$$R_1 - \frac{(A \cdot B \cdot \sqrt{(A^2 - A \cdot B) + 1})}{\sqrt{A^3 \cdot B^3}} = 0.00000$$

$$\frac{(A \cdot B \cdot \sqrt{(A^2 - A \cdot B) + 1})}{\sqrt{A^3 \cdot B^3}} - \frac{\sqrt{N_1 \cdot N_2^{\,2} \cdot ((N_1^{\,2} \cdot N_2 - N_1) + N_2)}}{N_1 \cdot N_2} = 0.00000$$

$R_1 = 1.74816$

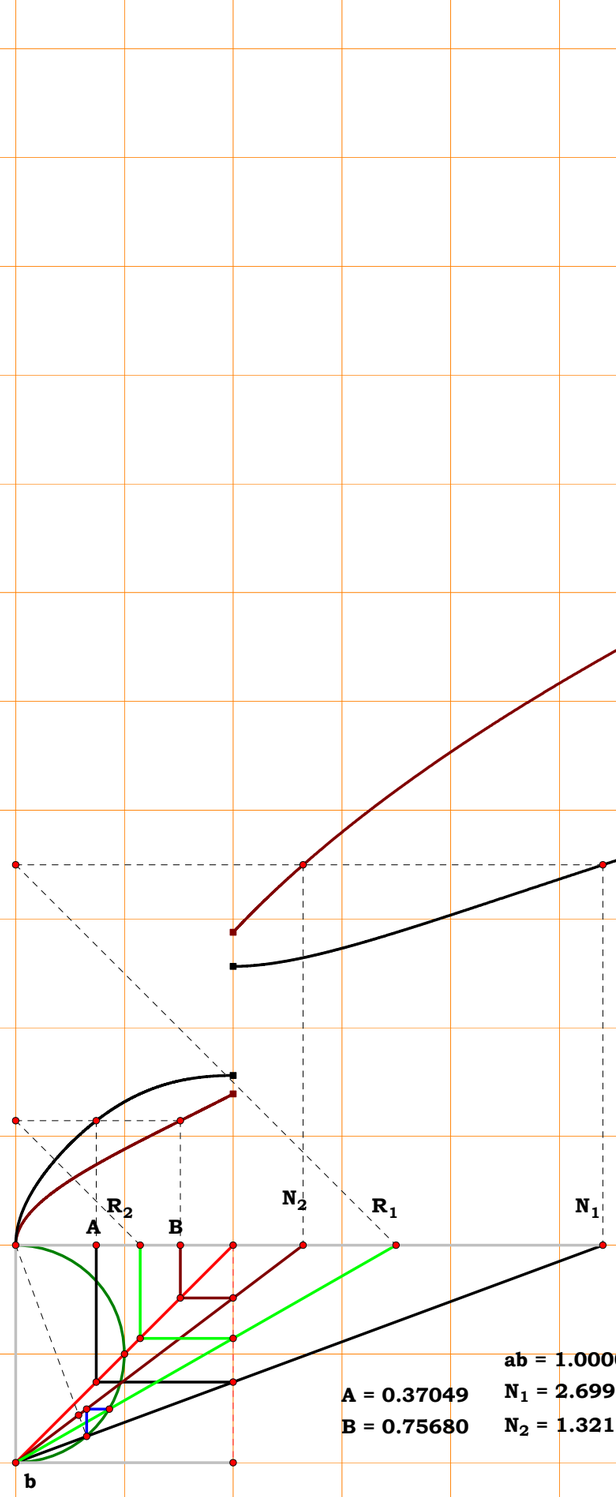
$$\frac{\sqrt{N_1 \cdot N_2^{\,2} \cdot ((N_1^{\,2} \cdot N_2 - N_1) + N_2)}}{N_1 \cdot N_2} = 1.74816$$

$$\frac{(A \cdot B \cdot \sqrt{(A^2 - A \cdot B) + 1})}{\sqrt{A^3 \cdot B^3}} = 1.74816$$

$R_2 = 0.57203$

$$\frac{\sqrt{A^3 \cdot B^3}}{(A \cdot B \cdot \sqrt{(A^2 - A \cdot B) + 1})} = 0.57203$$

$$R_2 - \frac{\sqrt{A^3 \cdot B^3}}{(A \cdot B \cdot \sqrt{(A^2 - A \cdot B) + 1})} = 0.00000$$



$A = 0.37049$

$B = 0.75680$

$ab = 1.00000$

$N_1 = 2.69911$

$N_2 = 1.32136$

$R_1 = 1.74816$

$$\frac{\sqrt{N_1 \cdot N_2^2 \cdot ((N_1^2 \cdot N_2 - N_1) + N_2)}}{N_1 \cdot N_2} = 1.74816$$

$$\frac{(A \cdot B \cdot \sqrt{(A^2 - A \cdot B) + 1})}{\sqrt{A^3 \cdot B^3}} = 1.74816$$

$$R_1 - \frac{\sqrt{N_1 \cdot N_2^2 \cdot ((N_1^2 \cdot N_2 - N_1) + N_2)}}{N_1 \cdot N_2} = 0.00000$$

$$R_1 - \frac{(A \cdot B \cdot \sqrt{(A^2 - A \cdot B) + 1})}{\sqrt{A^3 \cdot B^3}} = 0.00000$$

$$\frac{(A \cdot B \cdot \sqrt{(A^2 - A \cdot B) + 1})}{\sqrt{A^3 \cdot B^3}} - \frac{\sqrt{N_1 \cdot N_2^2 \cdot ((N_1^2 \cdot N_2 - N_1) + N_2)}}{N_1 \cdot N_2} = 0.00000$$

$R_2 = 0.57203$

$$\frac{\sqrt{A^3 \cdot B^3}}{(A \cdot B \cdot \sqrt{(A^2 - A \cdot B) + 1})} = 0.57203$$

$$R_2 - \frac{\sqrt{A^3 \cdot B^3}}{(A \cdot B \cdot \sqrt{(A^2 - A \cdot B) + 1})} = 0.00000$$

2SMT4R5

Given.

Unit. $ab := 1$

$N_1 := 3.99520 \quad N_2 := 1.51739$

$N_3 := 1.22346 \quad N_4 := 2.72028$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2} \quad C := \frac{1}{N_3} \quad D := \frac{1}{N_4}$

Descriptions.

$cd := N_3 \cdot \frac{N_2}{N_1} \qquad ac := \frac{1}{2} - \sqrt{\left(\frac{1}{2}\right)^2 - cd^2} \qquad R_1 := N_4 \cdot (1 - ac)$

$R_1 = 1.86231 \qquad R_2 := \frac{1}{R_1}$

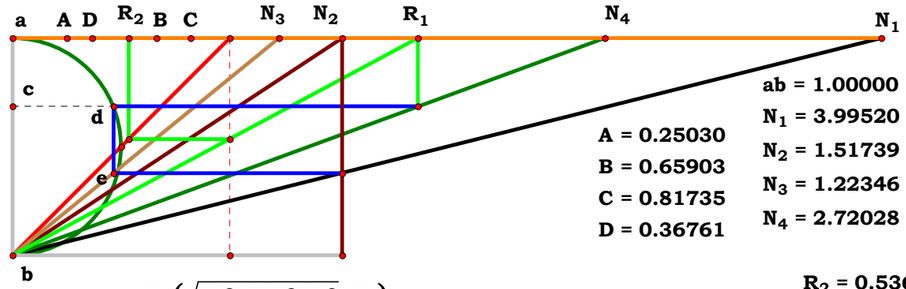
Definitions.

$$R_1 - \frac{N_4 \cdot \left(\sqrt{N_1^{\,2} - 4 \cdot N_2^{\,2} \cdot N_3^{\,2}} + N_1\right)}{2 \cdot N_1} = 0$$

$N_1 - \frac{1}{A} = 0 \qquad N_2 - \frac{1}{B} = 0$

$N_3 - \frac{1}{C} = 0 \qquad N_4 - \frac{1}{D} = 0$

$$R_1 - \frac{\sqrt{B^2 \cdot C^2 - 4 \cdot A^2} + B \cdot C}{2 \cdot D \cdot B \cdot C} = 0 \qquad R_2 - \frac{2 \cdot D \cdot B \cdot C}{\sqrt{B^2 \cdot C^2 - 4 \cdot A^2} + B \cdot C} = 0$$



$A = 0.25030$
$B = 0.65903$
$C = 0.81735$
$D = 0.36761$

$ab = 1.00000$
$N_1 = 3.99520$
$N_2 = 1.51739$
$N_3 = 1.22346$
$N_4 = 2.72028$

$R_1 = 1.86230$

$$\frac{N_4 \cdot \left(\sqrt{N_1^{\,2} - 4 \cdot N_2^{\,2} \cdot N_3^{\,2}} + N_1\right)}{2 \cdot N_1} = 1.86230$$

$$\frac{\left(\sqrt{B^2 \cdot C^2 - 4 \cdot A^2} + B \cdot C\right)}{(2 \cdot B \cdot C \cdot D)} = 1.86230$$

$$R_1 - \frac{N_4 \cdot \left(\sqrt{N_1^{\,2} - 4 \cdot N_2^{\,2} \cdot N_3^{\,2}} + N_1\right)}{2 \cdot N_1} = 0.00000$$

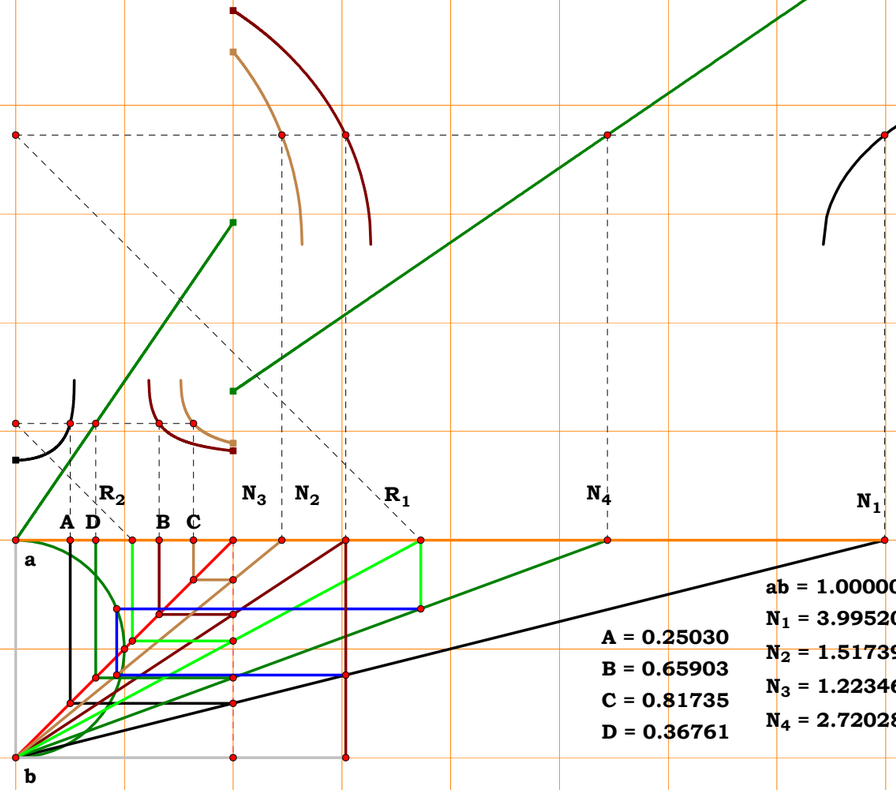
$$R_1 - \frac{\left(\sqrt{B^2 \cdot C^2 - 4 \cdot A^2} + B \cdot C\right)}{(2 \cdot B \cdot C \cdot D)} = 0.00000$$

$$\frac{\left(\sqrt{B^2 \cdot C^2 - 4 \cdot A^2} + B \cdot C\right)}{(2 \cdot B \cdot C \cdot D)} - \frac{N_4 \cdot \left(\sqrt{N_1^{\,2} - 4 \cdot N_2^{\,2} \cdot N_3^{\,2}} + N_1\right)}{2 \cdot N_1} = 0.00000$$

$R_2 = 0.53697$

$$\frac{(2 \cdot B \cdot C \cdot D)}{\left(\sqrt{B^2 \cdot C^2 - 4 \cdot A^2} + B \cdot C\right)} = 0.53697$$

$$R_2 - \frac{(2 \cdot B \cdot C \cdot D)}{\left(\sqrt{B^2 \cdot C^2 - 4 \cdot A^2} + B \cdot C\right)} = 0.00000$$



A = 0.25030
B = 0.65903
C = 0.81735
D = 0.36761

ab = 1.00000
N_1 = 3.99520
N_2 = 1.51739
N_3 = 1.22346
N_4 = 2.72028

$R_1 = 1.86230$

$$\frac{N_4\cdot\left(\sqrt{N_1^2-4\cdot N_2^2\cdot N_3^2}+N_1\right)}{2\cdot N_1} = 1.86230$$

$$\frac{\left(\sqrt{B^2\cdot C^2-4\cdot A^2}+B\cdot C\right)}{(2\cdot B\cdot C\cdot D)} = 1.86230$$

$$R_1-\frac{N_4\cdot\left(\sqrt{N_1^2-4\cdot N_2^2\cdot N_3^2}+N_1\right)}{2\cdot N_1} = 0.00000$$

$$R_1-\frac{\left(\sqrt{B^2\cdot C^2-4\cdot A^2}+B\cdot C\right)}{(2\cdot B\cdot C\cdot D)} = 0.00000$$

$$\frac{\left(\sqrt{B^2\cdot C^2-4\cdot A^2}+B\cdot C\right)}{(2\cdot B\cdot C\cdot D)}-\frac{N_4\cdot\left(\sqrt{N_1^2-4\cdot N_2^2\cdot N_3^2}+N_1\right)}{2\cdot N_1} = 0.00000$$

$R_2 = 0.53697$

$$\frac{(2\cdot B\cdot C\cdot D)}{\left(\sqrt{B^2\cdot C^2-4\cdot A^2}+B\cdot C\right)} = 0.53697$$

$$R_2-\frac{(2\cdot B\cdot C\cdot D)}{\left(\sqrt{B^2\cdot C^2-4\cdot A^2}+B\cdot C\right)} = 0.00000$$

2SMT4R6

Given.

Unit. $ab := 1$

$N_1 := 4.01454 \quad N_2 := 1.40203$

$N_3 := 1.17109 \quad N_4 := 1.81455$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2} \quad C := \frac{1}{N_3} \quad D := \frac{1}{N_4}$

Descriptions.

$ce := N_3 \cdot \frac{N_2}{N_1} \quad ac := \frac{1}{2} - \sqrt{\left(\frac{1}{2}\right)^2 - ce^2} \quad R_1 := \frac{N_4}{1 - ac}$

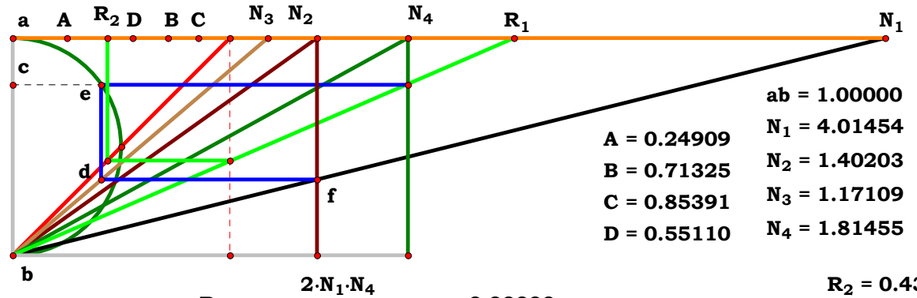
$R_1 = 2.303826 \quad R_2 := \frac{1}{R_1}$

Definitions.

$$R_1 - \frac{2 \cdot N_1 \cdot N_4}{\sqrt{N_1^2 - 4 \cdot N_2^2 \cdot N_3^2} + N_1} = 0$$

$N_1 - \frac{1}{A} = 0 \quad N_2 - \frac{1}{B} = 0 \quad N_3 - \frac{1}{C} = 0 \quad N_4 - \frac{1}{D} = 0$

$$R_1 - \frac{2 \cdot B \cdot C}{D \cdot \left(\sqrt{B^2 \cdot C^2 - 4 \cdot A^2} + B \cdot C\right)} = 0 \quad R_2 - \frac{D \cdot \left(\sqrt{B^2 \cdot C^2 - 4 \cdot A^2} + B \cdot C\right)}{2 \cdot B \cdot C} = 0$$



A = 0.24909
B = 0.71325
C = 0.85391
D = 0.55110

ab = 1.00000
N_1 = 4.01454
N_2 = 1.40203
N_3 = 1.17109
N_4 = 1.81455

$R_1 = 2.30382$

$$\frac{2 \cdot N_1 \cdot N_4}{N_1 + \sqrt{N_1^2 - 4 \cdot N_2^2 \cdot N_3^2}} = 2.30382$$

$$\frac{(2 \cdot B \cdot C)}{\left(D \cdot \left(B \cdot C + \sqrt{B^2 \cdot C^2 - 4 \cdot A^2}\right)\right)} = 2.30382$$

$$R_1 - \frac{2 \cdot N_1 \cdot N_4}{N_1 + \sqrt{N_1^2 - 4 \cdot N_2^2 \cdot N_3^2}} = 0.00000$$

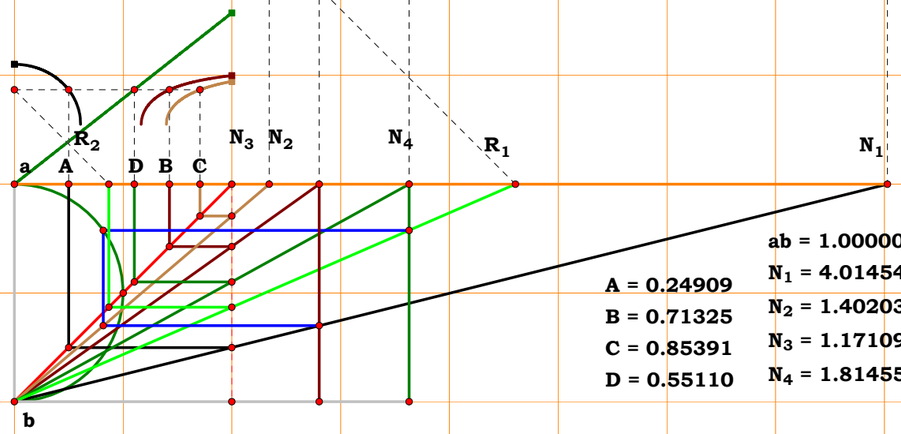
$$R_1 - \frac{(2 \cdot B \cdot C)}{\left(D \cdot \left(B \cdot C + \sqrt{B^2 \cdot C^2 - 4 \cdot A^2}\right)\right)} = 0.00000$$

$$\frac{(2 \cdot B \cdot C)}{\left(D \cdot \left(B \cdot C + \sqrt{B^2 \cdot C^2 - 4 \cdot A^2}\right)\right)} - \frac{2 \cdot N_1 \cdot N_4}{N_1 + \sqrt{N_1^2 - 4 \cdot N_2^2 \cdot N_3^2}} = 0.00000$$

$R_2 = 0.43406$

$$\frac{\left(D \cdot \left(B \cdot C + \sqrt{B^2 \cdot C^2 - 4 \cdot A^2}\right)\right)}{(2 \cdot B \cdot C)} = 0.43406$$

$$R_2 - \frac{\left(D \cdot \left(B \cdot C + \sqrt{B^2 \cdot C^2 - 4 \cdot A^2}\right)\right)}{(2 \cdot B \cdot C)} = 0.00000$$



ab = 1.00000

A = 0.24909
B = 0.71325
C = 0.85391
D = 0.55110

$N_1 = 4.01454$
$N_2 = 1.40203$
$N_3 = 1.17109$
$N_4 = 1.81455$

$$R_1 = 2.30382$$

$$\frac{2 \cdot N_1 \cdot N_4}{N_1 + \sqrt{N_1^2 - 4 \cdot N_2^2 \cdot N_3^2}} = 2.30382$$

$$\frac{(2 \cdot B \cdot C)}{\left(D \cdot \left(B \cdot C + \sqrt{B^2 \cdot C^2 - 4 \cdot A^2}\right)\right)} = 2.30382$$

$$R_1 - \frac{2 \cdot N_1 \cdot N_4}{N_1 + \sqrt{N_1^2 - 4 \cdot N_2^2 \cdot N_3^2}} = 0.00000$$

$$R_1 - \frac{(2 \cdot B \cdot C)}{\left(D \cdot \left(B \cdot C + \sqrt{B^2 \cdot C^2 - 4 \cdot A^2}\right)\right)} = 0.00000$$

$$\frac{(2 \cdot B \cdot C)}{\left(D \cdot \left(B \cdot C + \sqrt{B^2 \cdot C^2 - 4 \cdot A^2}\right)\right)} - \frac{2 \cdot N_1 \cdot N_4}{N_1 + \sqrt{N_1^2 - 4 \cdot N_2^2 \cdot N_3^2}} = 0.00000$$

$$R_2 = 0.43406$$

$$\frac{\left(D \cdot \left(B \cdot C + \sqrt{B^2 \cdot C^2 - 4 \cdot A^2}\right)\right)}{(2 \cdot B \cdot C)} = 0.43406$$

$$R_2 - \frac{\left(D \cdot \left(B \cdot C + \sqrt{B^2 \cdot C^2 - 4 \cdot A^2}\right)\right)}{(2 \cdot B \cdot C)} = 0.00000$$

2SMT4R7

Given.

Unit. $ab := 1$ $N_1 := 2.20402$

$N_2 := 1.55603$ $N_3 := 1.16660$

$A := \frac{1}{N_1}$ $B := \frac{1}{N_2}$ $C := \frac{1}{N_3}$

Descriptions.

$bN_1 := \sqrt{N_1^2 + 1}$ $bd := \frac{1}{bN_1}$

$be := \frac{N_1 \cdot bd}{bN_1}$ $ce := \frac{be}{N_3}$ $R_1 := \frac{N_2}{ce}$

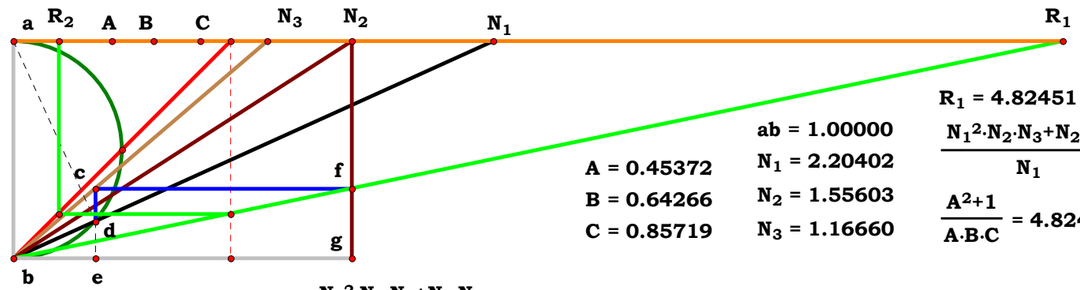
$R_1 = 4.824495$ $R_2 := \frac{1}{R_1}$

Definitions.

$$R_1 - \frac{N_1^2 \cdot N_2 \cdot N_3 + N_2 \cdot N_3}{N_1} = 0$$

$N_1 - \frac{1}{A} = 0$ $N_2 - \frac{1}{B} = 0$ $N_3 - \frac{1}{C} = 0$

$R_1 - \frac{\left(A^2 + 1\right)}{A \cdot B \cdot C} = 0$ $R_2 - \frac{A \cdot B \cdot C}{\left(A^2 + 1\right)} = 0$



$A = 0.45372$ $ab = 1.00000$

$B = 0.64266$ $N_1 = 2.20402$

$C = 0.85719$ $N_2 = 1.55603$

$N_3 = 1.16660$

$R_1 = 4.82451$

$\frac{N_1^2 \cdot N_2 \cdot N_3 + N_2 \cdot N_3}{N_1} = 4.82451$

$\frac{A^2+1}{A \cdot B \cdot C} = 4.82451$

$R_1 - \frac{N_1^2 \cdot N_2 \cdot N_3 + N_2 \cdot N_3}{N_1} = 0.00000$

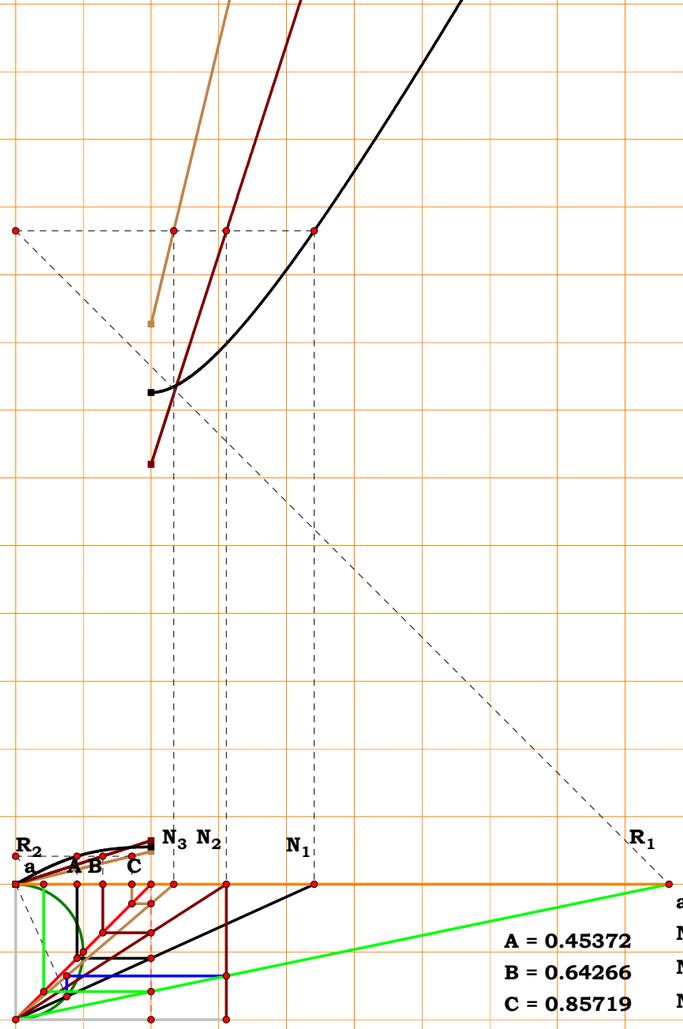
$R_1 - \frac{A^2+1}{A \cdot B \cdot C} = 0.00000$

$\frac{A^2+1}{A \cdot B \cdot C} - \frac{N_1^2 \cdot N_2 \cdot N_3 + N_2 \cdot N_3}{N_1} = 0.00000$

$R_2 = 0.20727$

$\frac{A \cdot B \cdot C}{A^2+1} = 0.20727$

$R_2 - \frac{A \cdot B \cdot C}{A^2+1} = 0.00000$



$A = 0.45372$
$B = 0.64266$
$C = 0.85719$

$ab = 1.00000$
$N_1 = 2.20402$
$N_2 = 1.55603$
$N_3 = 1.16660$

$R_1 = 4.82451$

$$\frac{N_1^2 \cdot N_2 \cdot N_3 + N_2 \cdot N_3}{N_1} = 4.82451$$

$$\frac{A^2+1}{A \cdot B \cdot C} = 4.82451$$

$$R_1 - \frac{N_1^2 \cdot N_2 \cdot N_3 + N_2 \cdot N_3}{N_1} = 0.00000$$

$$R_1 - \frac{A^2+1}{A \cdot B \cdot C} = 0.00000$$

$$\frac{A^2+1}{A \cdot B \cdot C} - \frac{N_1^2 \cdot N_2 \cdot N_3 + N_2 \cdot N_3}{N_1} = 0.00000$$

$R_2 = 0.20727$

$$\frac{A \cdot B \cdot C}{A^2+1} = 0.20727$$

$$R_2 - \frac{A \cdot B \cdot C}{A^2+1} = 0.00000$$

2SMT4R9

Given.

Unit. $ab := 1$

$N_1 := 2.38119 \quad N_2 := 1.72758 \quad N_3 := 1.44282$

$N_4 := 3.54292 \quad N_5 := 1.12556 \quad N_6 := 1.32443$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2} \quad C := \frac{1}{N_3} \quad D := \frac{1}{N_4} \quad E := \frac{1}{N_5} \quad F := \frac{1}{N_6}$

Descriptions.

$bN_1 := \sqrt{1 + N_1^2} \qquad bg := \frac{1}{bN_1} \qquad bh := N_1 \cdot \frac{bg}{bN_1}$

$fh := \frac{bh}{N_2} \qquad cd := \frac{N_3}{N_4} \cdot N_5 \qquad ac := \frac{1}{2} - \sqrt{\left(\frac{1}{2}\right)^2 - cd^2}$

$aj := N_6 \cdot (1 - ac) \qquad R_1 := \frac{aj}{fh}$

$R_1 = 4.484731 \qquad R_2 := \frac{1}{R_1}$

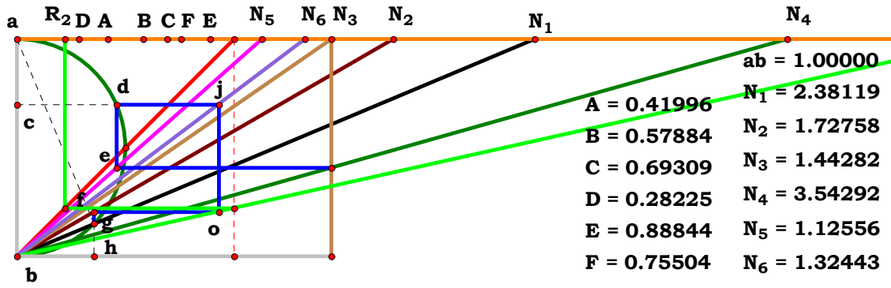
Definitions.

$$R_1 - \frac{N_2 \cdot N_6 \cdot \left(N_1^2 + 1\right) \cdot \left(\sqrt{N_4^2 - 4 \cdot N_3^2 \cdot N_5^2} + N_4\right)}{2 \cdot N_1 \cdot N_4} = 0$$

$N_1 - \frac{1}{A} = 0 \qquad N_2 - \frac{1}{B} = 0 \qquad N_3 - \frac{1}{C} = 0$

$N_4 - \frac{1}{D} = 0 \qquad N_5 - \frac{1}{E} = 0 \qquad N_6 - \frac{1}{F} = 0$

$$R_1 - \frac{\left[\sqrt{\left(C^2 \cdot E^2 - 4 \cdot D^2\right)} + C \cdot E\right] \cdot \left(A^2 + 1\right)}{(2 \cdot A \cdot B \cdot C \cdot E \cdot F)} = 0 \qquad R_2 - \frac{(2 \cdot A \cdot B \cdot C \cdot E \cdot F)}{\left[\sqrt{\left(C^2 \cdot E^2 - 4 \cdot D^2\right)} + C \cdot E\right] \cdot \left(A^2 + 1\right)} = 0$$



A = 0.41996
B = 0.57884
C = 0.69309
D = 0.28225
E = 0.88844
F = 0.75504

ab = 1.00000
N_1 = 2.38119
N_2 = 1.72758
N_3 = 1.44282
N_4 = 3.54292
N_5 = 1.12556
N_6 = 1.32443

$R_1 = 4.48471$

$$\frac{N_2 \cdot N_6 \cdot \left(N_1^2 + 1\right) \cdot \left(N_4 + \sqrt{N_4^2 - 4 \cdot N_3^2 \cdot N_5^2}\right)}{2 \cdot N_1 \cdot N_4} = 4.48471$$

$$\frac{\left((A^2 + 1) \cdot \left(C \cdot E + \sqrt{C^2 \cdot E^2 - 4 \cdot D^2}\right)\right)}{(2 \cdot A \cdot B \cdot C \cdot E \cdot F)} = 4.48471$$

$$R_1 - \frac{N_2 \cdot N_6 \cdot \left(N_1^2 + 1\right) \cdot \left(N_4 + \sqrt{N_4^2 - 4 \cdot N_3^2 \cdot N_5^2}\right)}{2 \cdot N_1 \cdot N_4} = 0.00000$$

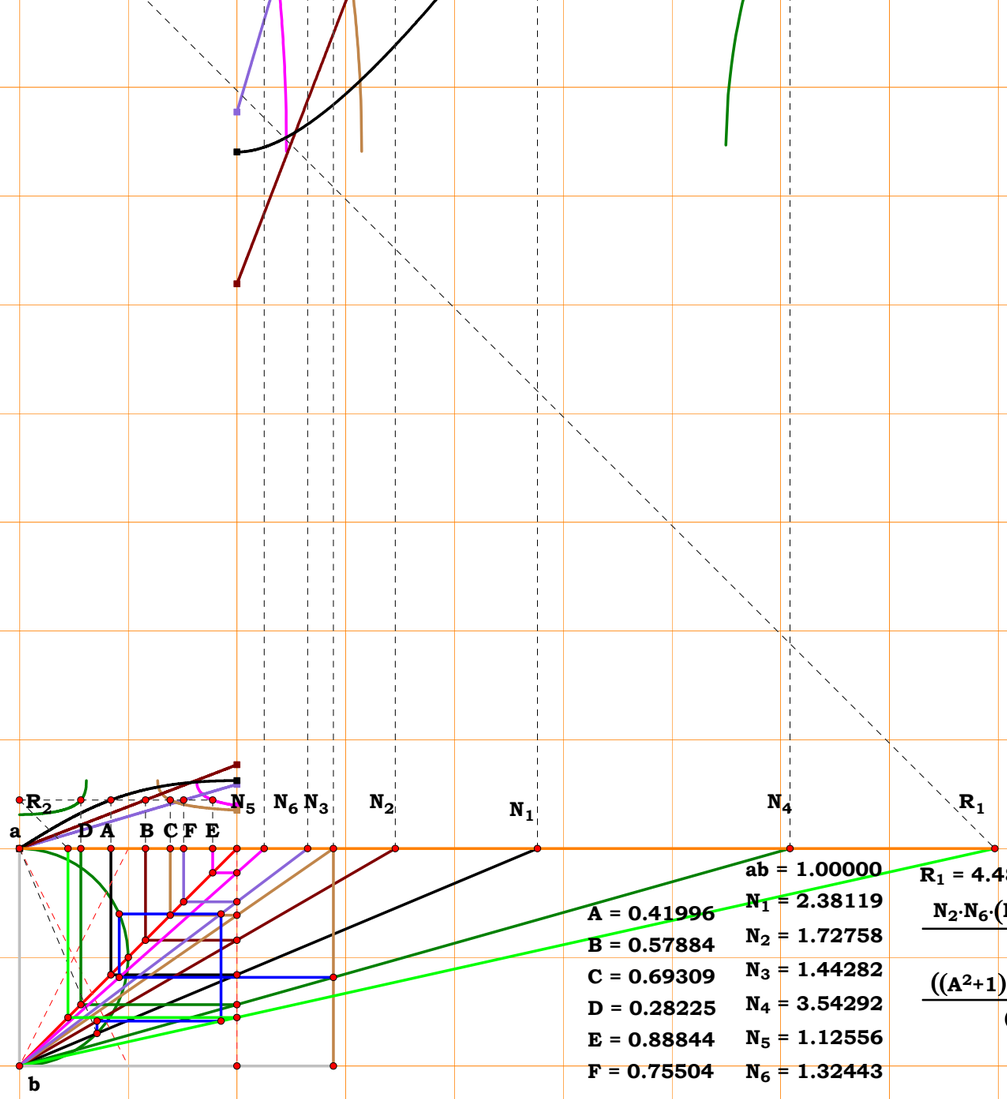
$$R_1 - \frac{\left((A^2 + 1) \cdot \left(C \cdot E + \sqrt{C^2 \cdot E^2 - 4 \cdot D^2}\right)\right)}{(2 \cdot A \cdot B \cdot C \cdot E \cdot F)} = 0.00000$$

$$\frac{\left((A^2 + 1) \cdot \left(C \cdot E + \sqrt{C^2 \cdot E^2 - 4 \cdot D^2}\right)\right)}{(2 \cdot A \cdot B \cdot C \cdot E \cdot F)} - \frac{N_2 \cdot N_6 \cdot \left(N_1^2 + 1\right) \cdot \left(N_4 + \sqrt{N_4^2 - 4 \cdot N_3^2 \cdot N_5^2}\right)}{2 \cdot N_1 \cdot N_4} = 0.00000$$

$R_2 = 0.22298$

$$\frac{(2 \cdot A \cdot B \cdot C \cdot E \cdot F)}{\left((A^2 + 1) \cdot \left(C \cdot E + \sqrt{C^2 \cdot E^2 - 4 \cdot D^2}\right)\right)} = 0.22298$$

$$R_2 - \frac{(2 \cdot A \cdot B \cdot C \cdot E \cdot F)}{\left((A^2 + 1) \cdot \left(C \cdot E + \sqrt{C^2 \cdot E^2 - 4 \cdot D^2}\right)\right)} = 0.00000$$



$A = 0.41996$
$B = 0.57884$
$C = 0.69309$
$D = 0.28225$
$E = 0.88844$
$F = 0.75504$

$ab = 1.00000$
$N_1 = 2.38119$
$N_2 = 1.72758$
$N_3 = 1.44282$
$N_4 = 3.54292$
$N_5 = 1.12556$
$N_6 = 1.32443$

$R_1 = 4.48471$

$$\frac{N_2 \cdot N_6 \cdot (N_1^2+1) \cdot \left(N_4+\sqrt{N_4^2-4 \cdot N_3^2 \cdot N_5^2}\right)}{2 \cdot N_1 \cdot N_4} = 4.48471$$

$$\frac{((A^2+1) \cdot (C \cdot E+\sqrt{C^2 \cdot E^2-4 \cdot D^2}))}{(2 \cdot A \cdot B \cdot C \cdot E \cdot F)} = 4.48471$$

$R_2 = 0.22298$

$$\frac{(2 \cdot A \cdot B \cdot C \cdot E \cdot F)}{((A^2+1) \cdot (C \cdot E+\sqrt{C^2 \cdot E^2-4 \cdot D^2}))} = 0.22298$$

$$R_2 - \frac{(2 \cdot A \cdot B \cdot C \cdot E \cdot F)}{((A^2+1) \cdot (C \cdot E+\sqrt{C^2 \cdot E^2-4 \cdot D^2}))} = 0.00000$$

$$R_1 - \frac{N_2 \cdot N_6 \cdot (N_1^2+1) \cdot \left(N_4+\sqrt{N_4^2-4 \cdot N_3^2 \cdot N_5^2}\right)}{2 \cdot N_1 \cdot N_4} = 0.00000$$

$$R_1 - \frac{((A^2+1) \cdot (C \cdot E+\sqrt{C^2 \cdot E^2-4 \cdot D^2}))}{(2 \cdot A \cdot B \cdot C \cdot E \cdot F)} = 0.00000$$

$$\frac{((A^2+1) \cdot (C \cdot E+\sqrt{C^2 \cdot E^2-4 \cdot D^2}))}{(2 \cdot A \cdot B \cdot C \cdot E \cdot F)} - \frac{N_2 \cdot N_6 \cdot (N_1^2+1) \cdot \left(N_4+\sqrt{N_4^2-4 \cdot N_3^2 \cdot N_5^2}\right)}{2 \cdot N_1 \cdot N_4} = 0.00000$$

2SMT4R10

Given.

Unit. $ab := 1$

$N_1 := 4.16658 \quad N_2 := 1.31346$

$N_3 := 1.55293 \quad N_4 := 2.27446$

$N_5 := 1.40993$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2} \quad C := \frac{1}{N_3} \quad D := \frac{1}{N_4} \quad E := \frac{1}{N_5}$

Descriptions.

$cd := N_3 \cdot \frac{N_2}{N_1} \qquad bc := \frac{1}{2} - \sqrt{\left(\frac{1}{2}\right)^2 - cd^2}$

$be := \frac{cd}{1 - bc} \qquad fg := \frac{be}{be + N_4} \qquad R_1 := \frac{N_5}{fg}$

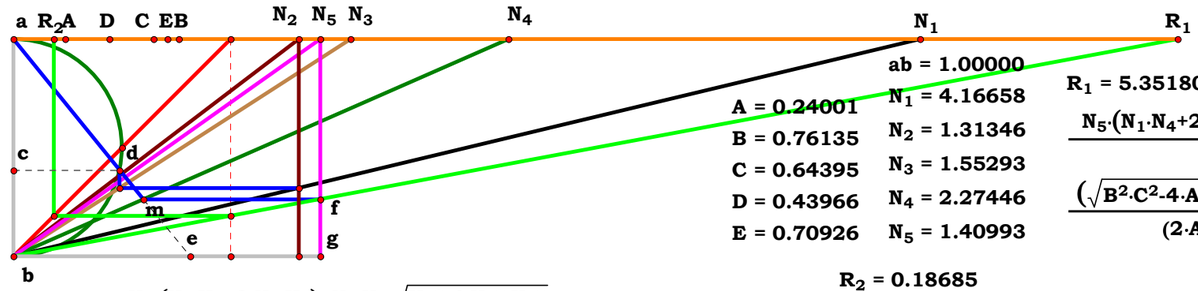
$R_1 = 5.351697 \qquad R_2 := \frac{1}{R_1}$

Definitions.

$$R_1 - \frac{N_5 \cdot \left(N_1 \cdot N_4 + 2 \cdot N_2 \cdot N_3\right) + N_4 \cdot N_5 \cdot \sqrt{N_1^2 - 4 \cdot N_2^2 \cdot N_3^2}}{2 \cdot N_2 \cdot N_3} = 0$$

$N_1 - \frac{1}{A} = 0 \qquad N_2 - \frac{1}{B} = 0 \qquad N_3 - \frac{1}{C} = 0 \qquad N_4 - \frac{1}{D} = 0 \qquad N_5 - \frac{1}{E} = 0$

$$R_1 - \frac{\sqrt{B^2 \cdot C^2 - 4 \cdot A^2} + (2 \cdot A \cdot D + B \cdot C)}{2 \cdot A \cdot D \cdot E} = 0 \qquad R_2 - \frac{2 \cdot A \cdot D \cdot E}{\sqrt{B^2 \cdot C^2 - 4 \cdot A^2} + (2 \cdot A \cdot D + B \cdot C)} = 0$$



$A = 0.24001 \quad B = 0.76135 \quad C = 0.64395 \quad D = 0.43966 \quad E = 0.70926$

$ab = 1.00000 \quad N_1 = 4.16658 \quad N_2 = 1.31346 \quad N_3 = 1.55293 \quad N_4 = 2.27446 \quad N_5 = 1.40993$

$R_1 = 5.35180$

$$\frac{N_5 \cdot \left(N_1 \cdot N_4 + 2 \cdot N_2 \cdot N_3\right) + N_4 \cdot N_5 \cdot \sqrt{N_1^2 - 4 \cdot N_2^2 \cdot N_3^2}}{2 \cdot N_2 \cdot N_3} = 5.35180$$

$$\frac{\left(\sqrt{B^2 \cdot C^2 - 4 \cdot A^2} + 2 \cdot A \cdot D + B \cdot C\right)}{(2 \cdot A \cdot D \cdot E)} = 5.35180$$

$$R_1 - \frac{N_5 \cdot \left(N_1 \cdot N_4 + 2 \cdot N_2 \cdot N_3\right) + N_4 \cdot N_5 \cdot \sqrt{N_1^2 - 4 \cdot N_2^2 \cdot N_3^2}}{2 \cdot N_2 \cdot N_3} = 0.00000$$

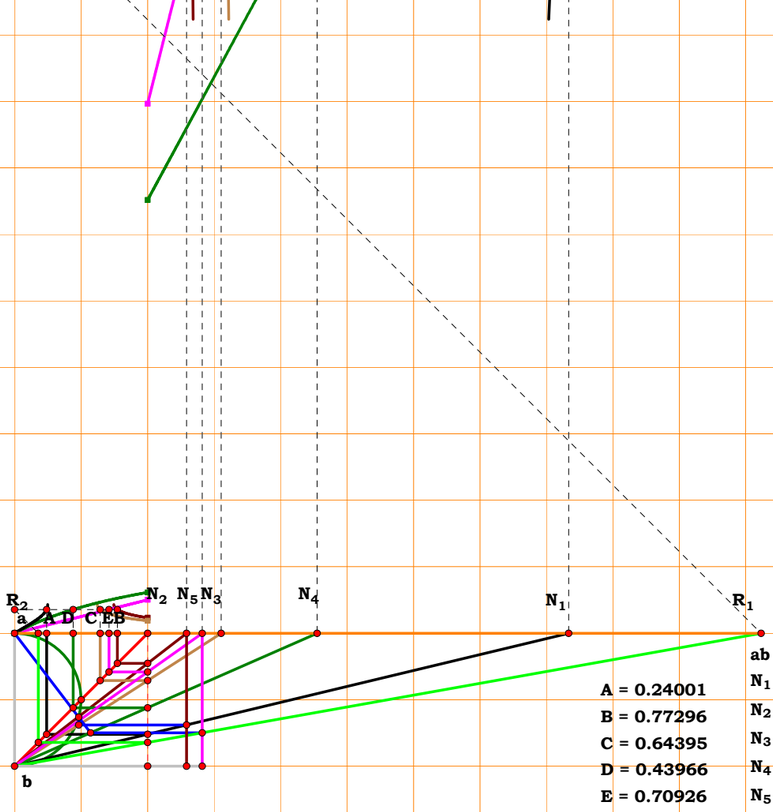
$$R_1 - \frac{\left(\sqrt{B^2 \cdot C^2 - 4 \cdot A^2} + 2 \cdot A \cdot D + B \cdot C\right)}{(2 \cdot A \cdot D \cdot E)} = 0.00000$$

$$\frac{\left(\sqrt{B^2 \cdot C^2 - 4 \cdot A^2} + 2 \cdot A \cdot D + B \cdot C\right)}{(2 \cdot A \cdot D \cdot E)} - \frac{N_5 \cdot \left(N_1 \cdot N_4 + 2 \cdot N_2 \cdot N_3\right) + N_4 \cdot N_5 \cdot \sqrt{N_1^2 - 4 \cdot N_2^2 \cdot N_3^2}}{2 \cdot N_2 \cdot N_3} = 0.00000$$

$R_2 = 0.18685$

$$\frac{(2 \cdot A \cdot D \cdot E)}{\left(\sqrt{B^2 \cdot C^2 - 4 \cdot A^2} + 2 \cdot A \cdot D + B \cdot C\right)} = 0.18685$$

$$R_2 - \frac{(2 \cdot A \cdot D \cdot E)}{\left(\sqrt{B^2 \cdot C^2 - 4 \cdot A^2} + 2 \cdot A \cdot D + B \cdot C\right)} = 0.00000$$



$A = 0.24001$
$B = 0.77296$
$C = 0.64395$
$D = 0.43966$
$E = 0.70926$

$ab = 1.00000$
$N_1 = 4.16658$
$N_2 = 1.29372$
$N_3 = 1.55293$
$N_4 = 2.27446$
$N_5 = 1.40993$

$R_1 = 5.61499$

$$\frac{N_5\cdot(N_1\cdot N_4+2\cdot N_2\cdot N_3)+N_4\cdot N_5\cdot\sqrt{N_1^2-4\cdot N_2^2\cdot N_3^2}}{2\cdot N_2\cdot N_3} = 5.61499$$

$$\frac{\left(\sqrt{B^2\cdot C^2-4\cdot A^2}+2\cdot A\cdot D+B\cdot C\right)}{(2\cdot A\cdot D\cdot E)} = 5.61499$$

$R_2 = 0.17809$

$$\frac{(2\cdot A\cdot D\cdot E)}{\left(\sqrt{B^2\cdot C^2-4\cdot A^2}+2\cdot A\cdot D+B\cdot C\right)} = 0.17809$$

$$R_2-\frac{(2\cdot A\cdot D\cdot E)}{\left(\sqrt{B^2\cdot C^2-4\cdot A^2}+2\cdot A\cdot D+B\cdot C\right)} = 0.00000$$

$$R_1-\frac{N_5\cdot(N_1\cdot N_4+2\cdot N_2\cdot N_3)+N_4\cdot N_5\cdot\sqrt{N_1^2-4\cdot N_2^2\cdot N_3^2}}{2\cdot N_2\cdot N_3} = 0.00000$$

$$R_1-\frac{\left(\sqrt{B^2\cdot C^2-4\cdot A^2}+2\cdot A\cdot D+B\cdot C\right)}{(2\cdot A\cdot D\cdot E)} = 0.00000$$

$$\frac{\left(\sqrt{B^2\cdot C^2-4\cdot A^2}+2\cdot A\cdot D+B\cdot C\right)}{(2\cdot A\cdot D\cdot E)}-\frac{N_5\cdot(N_1\cdot N_4+2\cdot N_2\cdot N_3)+N_4\cdot N_5\cdot\sqrt{N_1^2-4\cdot N_2^2\cdot N_3^2}}{2\cdot N_2\cdot N_3} = 0.00000$$

2SMT4R11

Given.

Unit. $ab := 1$ $N_1 := 1.72558$

$N_2 := 1.16126$ $N_3 := 1.31465$

$A := \frac{1}{N_1}$ $B := \frac{1}{N_2}$ $C := \frac{1}{N_3}$

Descriptions.

$bN_1 := \sqrt{1 + N_1^2}$ $be := \frac{1}{bN_1}$

$ce := \frac{N_1 \cdot be}{bN_1}$ $fg := \frac{ce}{N_2}$ $R_1 := \frac{N_3}{fg}$

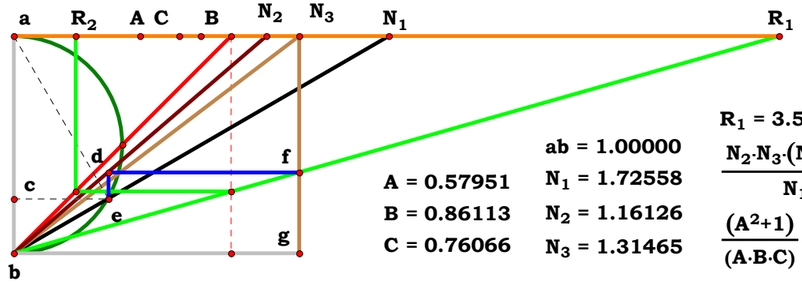
$R_1 = 3.519075$ $R_2 := \frac{1}{R_1}$

Definitions.

$R_1 - \frac{N_2 \cdot N_3 \cdot (N_1^2 + 1)}{N_1} = 0$

$N_1 - \frac{1}{A} = 0$ $N_2 - \frac{1}{B} = 0$ $N_3 - \frac{1}{C} = 0$

$R_1 - \frac{(A^2 + 1)}{A \cdot B \cdot C} = 0$ $R_2 - \frac{A \cdot B \cdot C}{(A^2 + 1)} = 0$



$A = 0.57951$
$B = 0.86113$
$C = 0.76066$

$ab = 1.00000$
$N_1 = 1.72558$
$N_2 = 1.16126$
$N_3 = 1.31465$

$R_1 = 3.51907$

$\frac{N_2 \cdot N_3 \cdot (N_1^2+1)}{N_1} = 3.51907$

$\frac{(A^2+1)}{(A \cdot B \cdot C)} = 3.51907$

$R_1 - \frac{N_2 \cdot N_3 \cdot (N_1^2+1)}{N_1} = 0.00000$

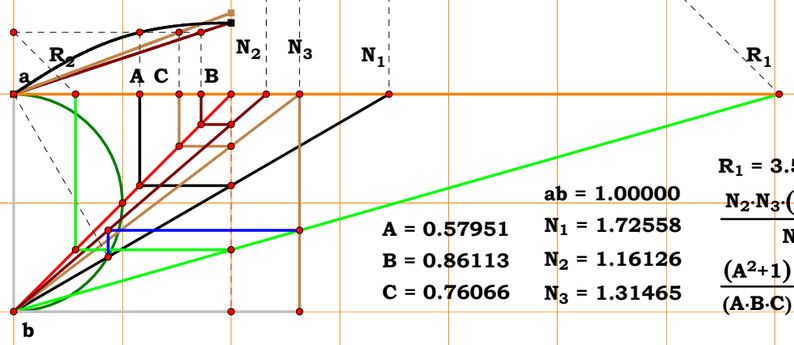
$R_1 - \frac{(A^2+1)}{(A \cdot B \cdot C)} = 0.00000$

$\frac{(A^2+1)}{(A \cdot B \cdot C)} - \frac{N_2 \cdot N_3 \cdot (N_1^2+1)}{N_1} = 0.00000$

$R_2 = 0.28417$

$\frac{(A \cdot B \cdot C)}{(A^2+1)} = 0.28417$

$R_2 - \frac{(A \cdot B \cdot C)}{(A^2+1)} = 0.00000$



A = 0.57951
B = 0.86113
C = 0.76066

ab = 1.00000
N_1 = 1.72558
N_2 = 1.16126
N_3 = 1.31465

$R_1 = 3.51907$

$$\frac{N_2 \cdot N_3 \cdot (N_1^2+1)}{N_1} = 3.51907$$

$$\frac{(A^2+1)}{(A \cdot B \cdot C)} = 3.51907$$

$$R_1 - \frac{N_2 \cdot N_3 \cdot (N_1^2+1)}{N_1} = 0.00000$$

$$R_1 - \frac{(A^2+1)}{(A \cdot B \cdot C)} = 0.00000$$

$$\frac{(A^2+1)}{(A \cdot B \cdot C)} - \frac{N_2 \cdot N_3 \cdot (N_1^2+1)}{N_1} = 0.00000$$

$R_2 = 0.28417$

$$\frac{(A \cdot B \cdot C)}{(A^2+1)} = 0.28417$$

$$R_2 - \frac{(A \cdot B \cdot C)}{(A^2+1)} = 0.00000$$

2SMT5R0

Given.

Unit. $ab := 1$ $N_1 := 1.56852$

$N_2 := 1.34863$ $N_3 := 1.13456$

$A := \frac{1}{N_1}$ $B := \frac{1}{N_2}$ $C := \frac{1}{N_3}$

Descriptions.

$bN_1 := \sqrt{N_1^2 + 1}$ $bd := \frac{1}{bN_1}$

$be := \frac{N_1 \cdot bd}{bN_1}$ $ce := \frac{(N_3 - be)}{N_3}$

$bk := \frac{N_2}{1 - ce}$ $ak := \sqrt{bk^2 + 1}$

$af := \frac{1}{ak}$ $R_1 := \frac{bk \cdot af}{ak}$

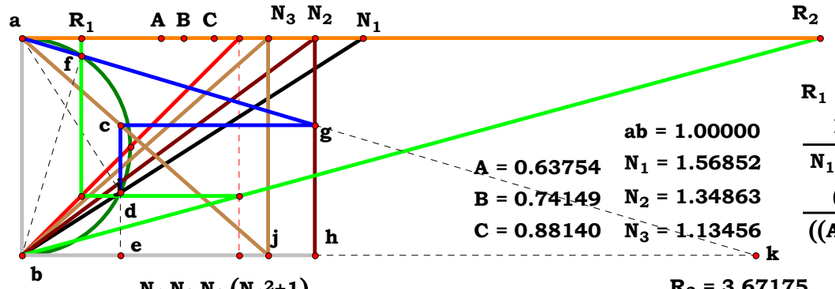
$R_1 = 0.272349$ $R_2 := \frac{1}{R_1}$

Definitions.

$$R_1 - \frac{N_1 \cdot N_2 \cdot N_3 \cdot (N_1^2 + 1)}{N_1^2 + N_2^2 \cdot N_3^2 \cdot (N_1^2 + 1)^2} = 0$$

$N_1 - \frac{1}{A} = 0$ $N_2 - \frac{1}{B} = 0$ $N_3 - \frac{1}{C} = 0$

$$R_1 - \frac{A \cdot B \cdot C \cdot (A^2 + 1)}{(A^2 + 1)^2 + A^2 \cdot B^2 \cdot C^2} = 0 \qquad R_2 - \frac{(A^2 + 1)^2 + A^2 \cdot B^2 \cdot C^2}{A \cdot B \cdot C \cdot (A^2 + 1)} = 0$$



$A = 0.63754$ $B = 0.74149$ $C = 0.88140$

$ab = 1.00000$ $N_1 = 1.56852$ $N_2 = 1.34863$ $N_3 = 1.13456$

$R_1 = 0.27235$

$$\frac{N_1 \cdot N_2 \cdot N_3 \cdot (N_1^2 + 1)}{N_1^2 + N_2^2 \cdot N_3^2 \cdot (N_1^2 + 1)^2} = 0.27235$$

$$\frac{(A \cdot B \cdot C \cdot (A^2 + 1))}{((A^2 + 1)^2 + A^2 \cdot B^2 \cdot C^2)} = 0.27235$$

$$R_1 - \frac{N_1 \cdot N_2 \cdot N_3 \cdot (N_1^2 + 1)}{N_1^2 + N_2^2 \cdot N_3^2 \cdot (N_1^2 + 1)^2} = 0.00000$$

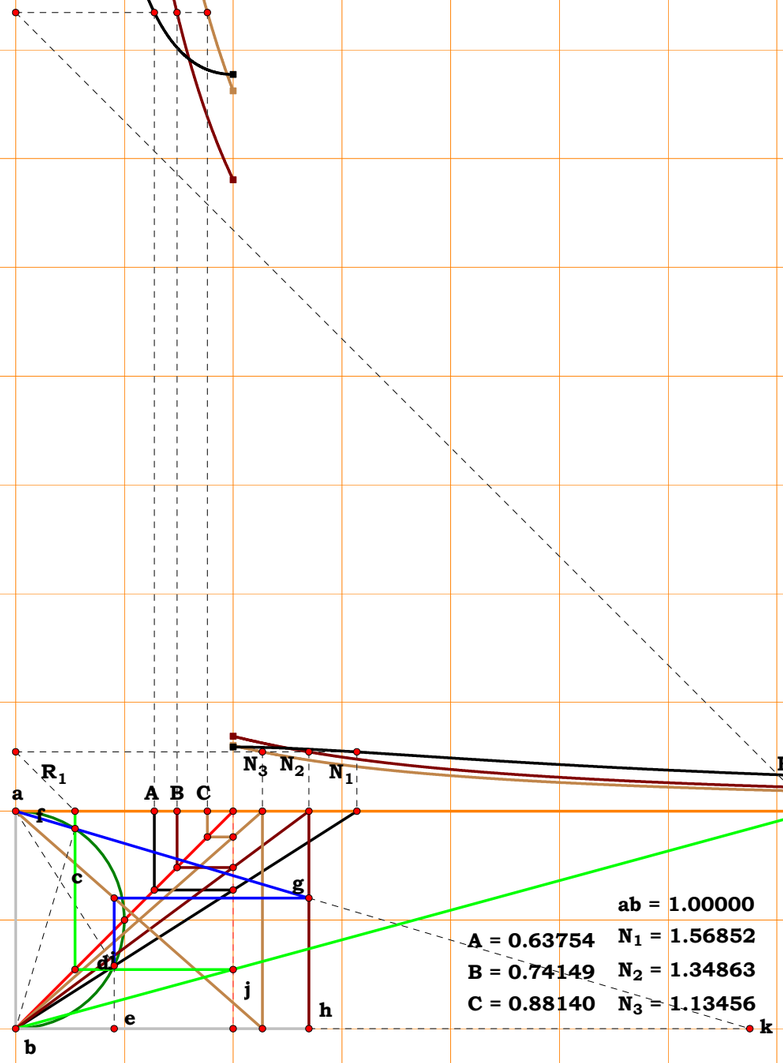
$$R_1 - \frac{(A \cdot B \cdot C \cdot (A^2 + 1))}{((A^2 + 1)^2 + A^2 \cdot B^2 \cdot C^2)} = 0.00000$$

$$\frac{(A \cdot B \cdot C \cdot (A^2 + 1))}{((A^2 + 1)^2 + A^2 \cdot B^2 \cdot C^2)} - \frac{N_1 \cdot N_2 \cdot N_3 \cdot (N_1^2 + 1)}{N_1^2 + N_2^2 \cdot N_3^2 \cdot (N_1^2 + 1)^2} = 0.00000$$

$R_2 = 3.67175$

$$\frac{((A^2 + 1)^2 + A^2 \cdot B^2 \cdot C^2)}{(A \cdot B \cdot C \cdot (A^2 + 1))} = 3.67175$$

$$R_2 - \frac{((A^2 + 1)^2 + A^2 \cdot B^2 \cdot C^2)}{(A \cdot B \cdot C \cdot (A^2 + 1))} = 0.00000$$



ab = 1.00000

A = 0.63754 N_1 = 1.56852

B = 0.74149 N_2 = 1.34863

C = 0.88140 N_3 = 1.13456

$R_1 = 0.27235$

$$\frac{N_1 \cdot N_2 \cdot N_3 \cdot (N_1^2+1)}{N_1^2+N_2^2 \cdot N_3^2 \cdot (N_1^2+1)^2} = 0.27235$$

$$\frac{(A \cdot B \cdot C \cdot (A^2+1))}{((A^2+1)^2+A^2 \cdot B^2 \cdot C^2)} = 0.27235$$

$$R_1 - \frac{N_1 \cdot N_2 \cdot N_3 \cdot (N_1^2+1)}{N_1^2+N_2^2 \cdot N_3^2 \cdot (N_1^2+1)^2} = 0.00000$$

$$R_1 - \frac{(A \cdot B \cdot C \cdot (A^2+1))}{((A^2+1)^2+A^2 \cdot B^2 \cdot C^2)} = 0.00000$$

$$\frac{(A \cdot B \cdot C \cdot (A^2+1))}{((A^2+1)^2+A^2 \cdot B^2 \cdot C^2)} - \frac{N_1 \cdot N_2 \cdot N_3 \cdot (N_1^2+1)}{N_1^2+N_2^2 \cdot N_3^2 \cdot (N_1^2+1)^2} = 0.00000$$

$R_2 = 3.67175$

$$\frac{((A^2+1)^2+A^2 \cdot B^2 \cdot C^2)}{(A \cdot B \cdot C \cdot (A^2+1))} = 3.67175$$

$$R_2 - \frac{((A^2+1)^2+A^2 \cdot B^2 \cdot C^2)}{(A \cdot B \cdot C \cdot (A^2+1))} = 0.00000$$

2SMT5R1

Given.

Unit. $ab := 1$ $N_1 := 1.75682$

$N_2 := 1.14711$ $N_3 := 1.39579$

$A := \frac{1}{N_1}$ $B := \frac{1}{N_2}$ $C := \frac{1}{N_3}$

Descriptions.

$bN_1 := \sqrt{N_1{}^2 + 1}$ $be := \frac{1}{bN_1}$ $bf := \frac{N_1 \cdot be}{bN_1}$

$df := \frac{(N_3 - bf)}{N_3}$ $bk := \frac{N_2}{1 - df}$ $R_1 := \frac{1}{bk}$

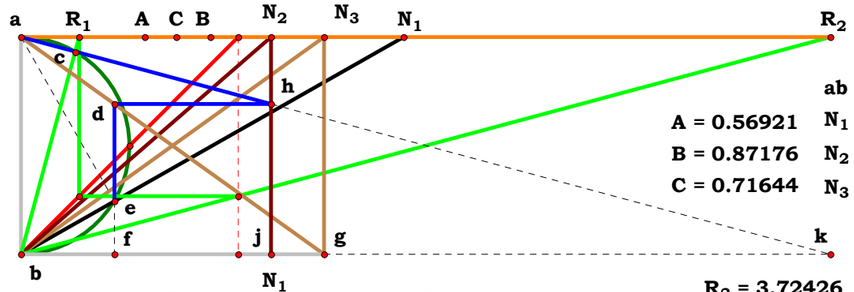
$R_1 = 0.268509$ $R_2 := \frac{1}{R_1}$

Definitions.

$$R_1 - \frac{N_1}{N_2 \cdot N_3 \cdot (N_1{}^2 + 1)} = 0$$

$N_1 - \frac{1}{A} = 0$ $N_2 - \frac{1}{B} = 0$ $N_3 - \frac{1}{C} = 0$

$R_1 - \frac{A \cdot B \cdot C}{A^2 + 1} = 0$ $R_2 - \frac{A^2 + 1}{A \cdot B \cdot C} = 0$



ab = 1.00000

A = 0.56921 N_1 = 1.75682

B = 0.87176 N_2 = 1.14711

C = 0.71644 N_3 = 1.39579

$R_1 = 0.26851$

$\frac{N_1}{N_2 \cdot N_3 \cdot (N_1{}^2+1)} = 0.26851$

$\frac{(A \cdot B \cdot C)}{(A^2+1)} = 0.26851$

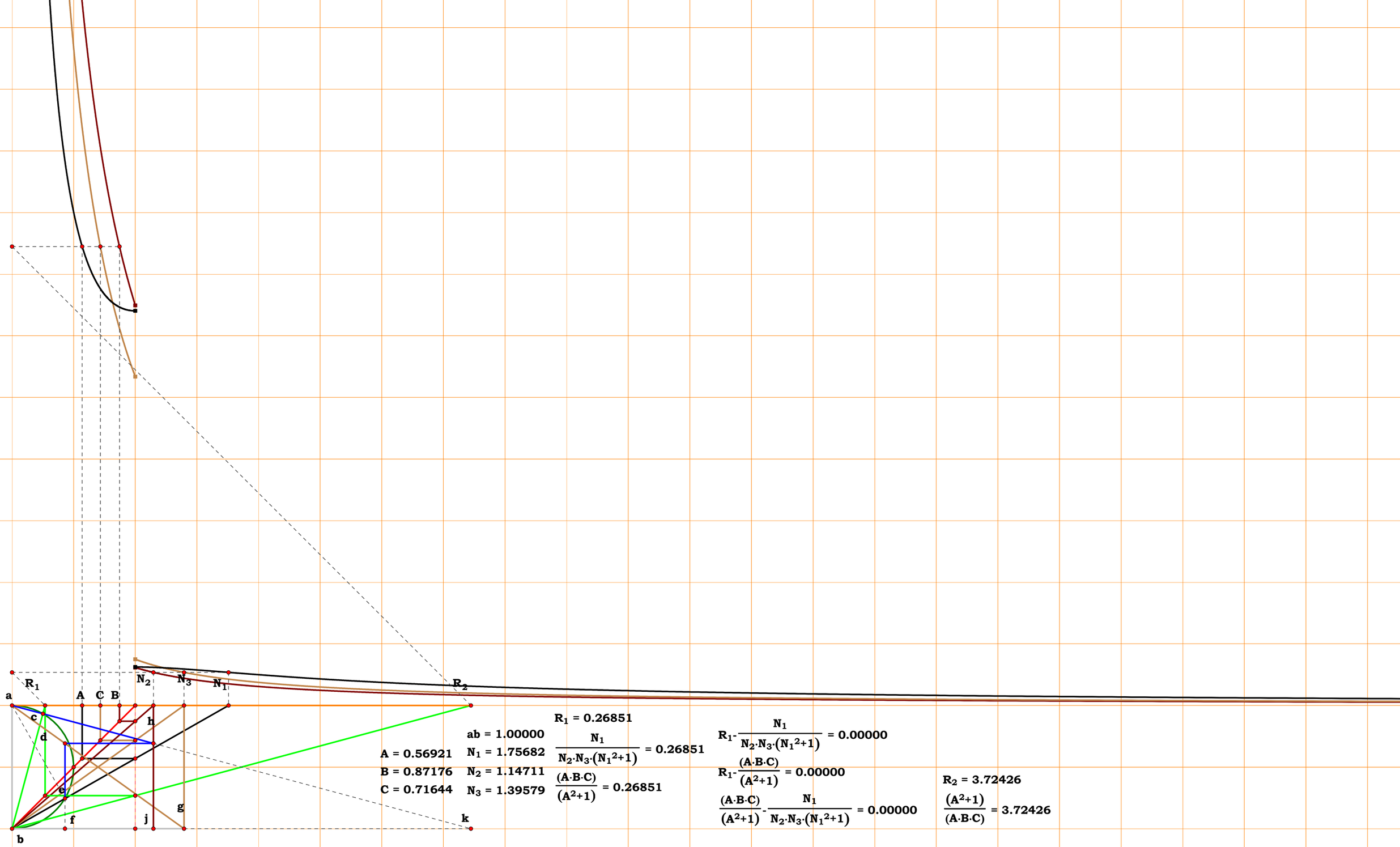
$R_1 - \frac{N_1}{N_2 \cdot N_3 \cdot (N_1{}^2+1)} = 0.00000$

$R_1 - \frac{(A \cdot B \cdot C)}{(A^2+1)} = 0.00000$

$\frac{(A \cdot B \cdot C)}{(A^2+1)} - \frac{N_1}{N_2 \cdot N_3 \cdot (N_1{}^2+1)} = 0.00000$

$R_2 = 3.72426$

$\frac{(A^2+1)}{(A \cdot B \cdot C)} = 3.72426$



$A = 0.56921$

$B = 0.87176$

$C = 0.71644$

$ab = 1.00000$

$N_1 = 1.75682$

$N_2 = 1.14711$

$N_3 = 1.39579$

$R_1 = 0.26851$

$$\frac{N_1}{N_2 \cdot N_3 \cdot (N_1^2+1)} = 0.26851$$

$$\frac{(A \cdot B \cdot C)}{(A^2+1)} = 0.26851$$

$$R_1 - \frac{N_1}{N_2 \cdot N_3 \cdot (N_1^2+1)} = 0.00000$$

$$R_1 - \frac{(A \cdot B \cdot C)}{(A^2+1)} = 0.00000$$

$$\frac{(A \cdot B \cdot C)}{(A^2+1)} - \frac{N_1}{N_2 \cdot N_3 \cdot (N_1^2+1)} = 0.00000$$

$R_2 = 3.72426$

$$\frac{(A^2+1)}{(A \cdot B \cdot C)} = 3.72426$$

2SMT5R2

Given.

Unit. $ab := 1$

$N_1 := 2.55857 \quad N_2 := 1.54553$

$N_3 := 1.21479 \quad N_4 := 1.84263$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2} \quad C := \frac{1}{N_3} \quad D := \frac{1}{N_4}$

Descriptions.

$bN_1 := \sqrt{1 + N_1^{\,2}} \quad be := \frac{1}{bN_1} \quad bf := N_1 \cdot \frac{be}{bN_1}$

$gN_3 := \frac{bf}{N_2} \quad bk := \frac{N_3}{gN_3} \quad ah := \frac{bk \cdot N_4}{bk + N_4}$

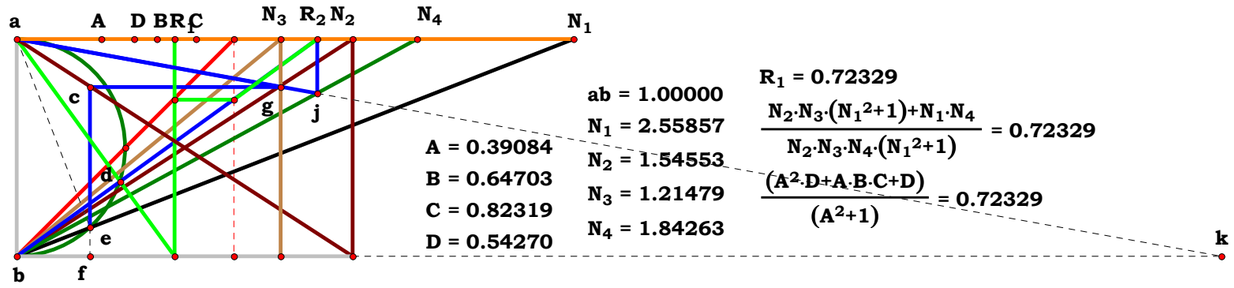
$R_1 := \frac{1}{ah} \quad R_1 = 0.723289 \quad R_2 := \frac{1}{R_1}$

Definitions.

$$R_1 - \frac{N_2 \cdot N_3 \cdot \left(N_1^{\,2} + 1\right) + N_1 \cdot N_4}{N_2 \cdot N_3 \cdot N_4 \cdot \left(N_1^{\,2} + 1\right)} = 0$$

$N_1 - \frac{1}{A} = 0 \quad N_2 - \frac{1}{B} = 0 \quad N_3 - \frac{1}{C} = 0 \quad N_4 - \frac{1}{D} = 0$

$R_1 - \frac{A^2 \cdot D + B \cdot C \cdot A + D}{A^2 + 1} = 0 \quad R_2 - \frac{A^2 + 1}{A^2 \cdot D + B \cdot C \cdot A + D} = 0$



ab = 1.00000
N_1 = 2.55857
N_2 = 1.54553
N_3 = 1.21479
N_4 = 1.84263

A = 0.39084
B = 0.64703
C = 0.82319
D = 0.54270

$R_1 = 0.72329$

$\frac{N_2 \cdot N_3 \cdot (N_1^{\,2}+1) + N_1 \cdot N_4}{N_2 \cdot N_3 \cdot N_4 \cdot (N_1^{\,2}+1)} = 0.72329$

$\frac{(A^2 \cdot D + A \cdot B \cdot C + D)}{(A^2+1)} = 0.72329$

$R_1 - \frac{N_2 \cdot N_3 \cdot (N_1^{\,2}+1) + N_1 \cdot N_4}{N_2 \cdot N_3 \cdot N_4 \cdot (N_1^{\,2}+1)} = 0.00000$

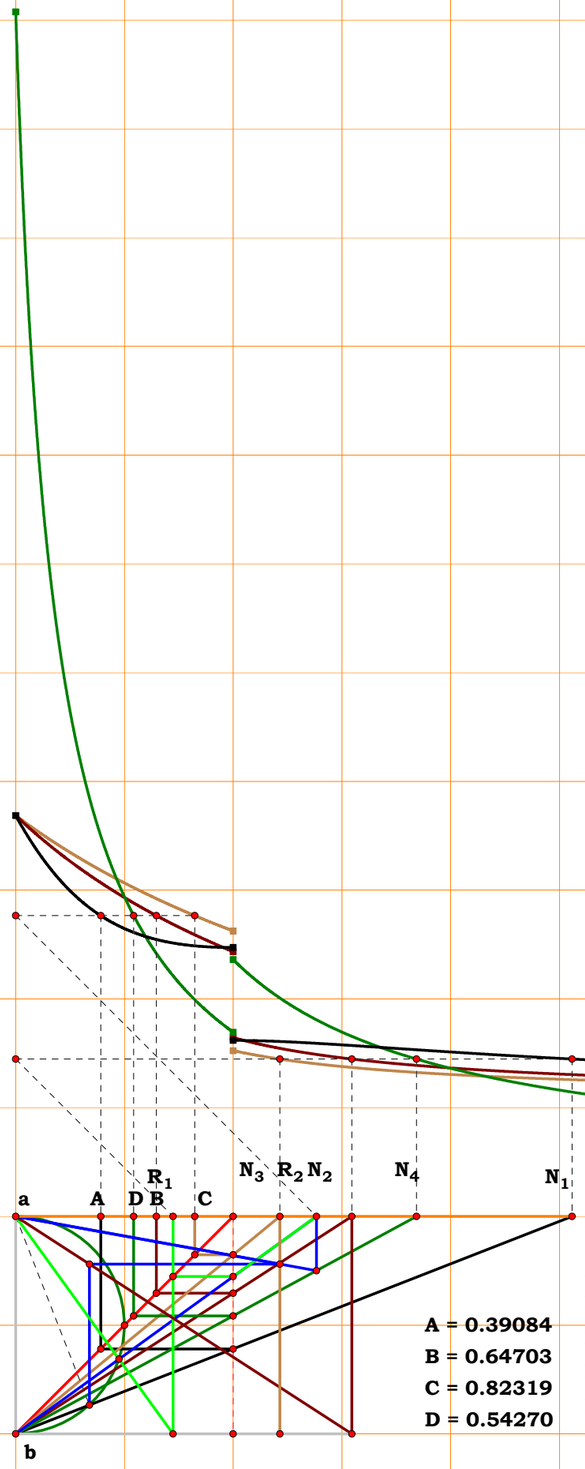
$R_1 - \frac{(A^2 \cdot D + A \cdot B \cdot C + D)}{(A^2+1)} = 0.00000$

$\frac{(A^2 \cdot D + A \cdot B \cdot C + D)}{(A^2+1)} - \frac{N_2 \cdot N_3 \cdot (N_1^{\,2}+1) + N_1 \cdot N_4}{N_2 \cdot N_3 \cdot N_4 \cdot (N_1^{\,2}+1)} = 0.00000$

$R_2 = 1.38257$

$\frac{(A^2+1)}{(A^2 \cdot D + A \cdot B \cdot C + D)} = 1.38257$

$R_2 - \frac{(A^2+1)}{(A^2 \cdot D + A \cdot B \cdot C + D)} = 0.00000$



A = 0.39084
B = 0.64703
C = 0.82319
D = 0.54270

ab = 1.00000
N_1 = 2.55857
N_2 = 1.54553
N_3 = 1.21479
N_4 = 1.84263

$R_1 = 0.72329$

$$\frac{N_2 \cdot N_3 \cdot (N_1^2+1)+N_1 \cdot N_4}{N_2 \cdot N_3 \cdot N_4 \cdot (N_1^2+1)} = 0.72329$$

$$\frac{(A^2 \cdot D+A \cdot B \cdot C+D)}{(A^2+1)} = 0.72329$$

$$R_1 - \frac{N_2 \cdot N_3 \cdot (N_1^2+1)+N_1 \cdot N_4}{N_2 \cdot N_3 \cdot N_4 \cdot (N_1^2+1)} = 0.00000$$

$$R_1 - \frac{(A^2 \cdot D+A \cdot B \cdot C+D)}{(A^2+1)} = 0.00000$$

$$\frac{(A^2 \cdot D+A \cdot B \cdot C+D)}{(A^2+1)} - \frac{N_2 \cdot N_3 \cdot (N_1^2+1)+N_1 \cdot N_4}{N_2 \cdot N_3 \cdot N_4 \cdot (N_1^2+1)} = 0.00000$$

$R_2 = 1.38257$

$$\frac{(A^2+1)}{(A^2 \cdot D+A \cdot B \cdot C+D)} = 1.38257$$

$$R_2 - \frac{(A^2+1)}{(A^2 \cdot D+A \cdot B \cdot C+D)} = 0.00000$$

2SMT5R3

Given.

Unit. $ab := 1$

$N_1 := 2.04013 \quad N_2 := 1.69096$

$N_3 := 1.28344 \quad N_4 := 4.10394$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2} \quad C := \frac{1}{N_3} \quad D := \frac{1}{N_4}$

Descriptions.

$bN_1 := \sqrt{1 + N_1^{\,2}} \quad bd := \frac{1}{bN_1} \quad be := N_1 \cdot \frac{bd}{bN_1}$

$fN_3 := \frac{be}{N_2} \quad bg := \frac{N_3}{fN_3} \quad R_1 := \frac{bg \cdot N_4}{bg + N_4}$

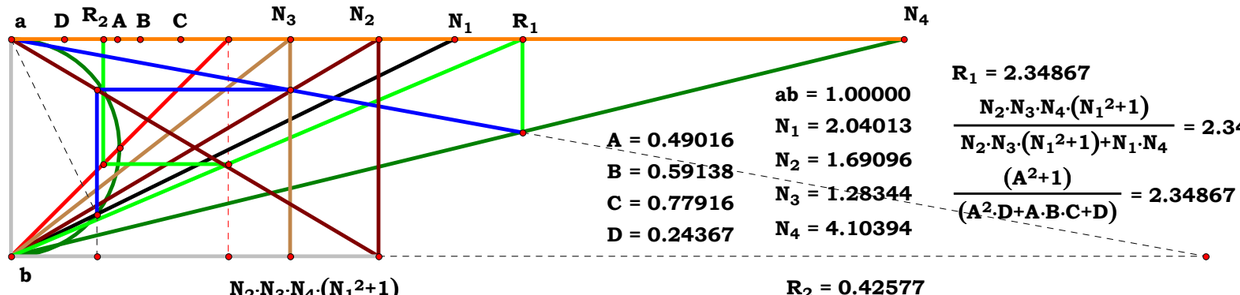
$R_1 = 2.348672 \quad R_2 := \frac{1}{R_1}$

Definitions.

$$R_1 - \frac{N_2 \cdot N_3 \cdot N_4 \cdot \left(N_1^{\,2} + 1\right)}{N_2 \cdot N_3 \cdot \left(N_1^{\,2} + 1\right) + N_1 \cdot N_4} = 0$$

$N_1 - \frac{1}{A} = 0 \quad N_2 - \frac{1}{B} = 0 \quad N_3 - \frac{1}{C} = 0 \quad N_4 - \frac{1}{D} = 0$

$$R_1 - \frac{\left(A^2 + 1\right)}{A^2 \cdot D + A \cdot B \cdot C + D} = 0 \quad R_2 - \frac{A^2 \cdot D + A \cdot B \cdot C + D}{\left(A^2 + 1\right)} = 0$$



A = 0.49016
B = 0.59138
C = 0.77916
D = 0.24367

ab = 1.00000
N1 = 2.04013
N2 = 1.69096
N3 = 1.28344
N4 = 4.10394

$R_1 = 2.34867$

$$\frac{N_2 \cdot N_3 \cdot N_4 \cdot (N_1^{\,2}+1)}{N_2 \cdot N_3 \cdot (N_1^{\,2}+1) + N_1 \cdot N_4} = 2.34867$$

$$\frac{(A^2+1)}{(A^2 \cdot D + A \cdot B \cdot C + D)} = 2.34867$$

$$R_1 - \frac{N_2 \cdot N_3 \cdot N_4 \cdot (N_1^{\,2}+1)}{N_2 \cdot N_3 \cdot (N_1^{\,2}+1) + N_1 \cdot N_4} = 0.00000$$

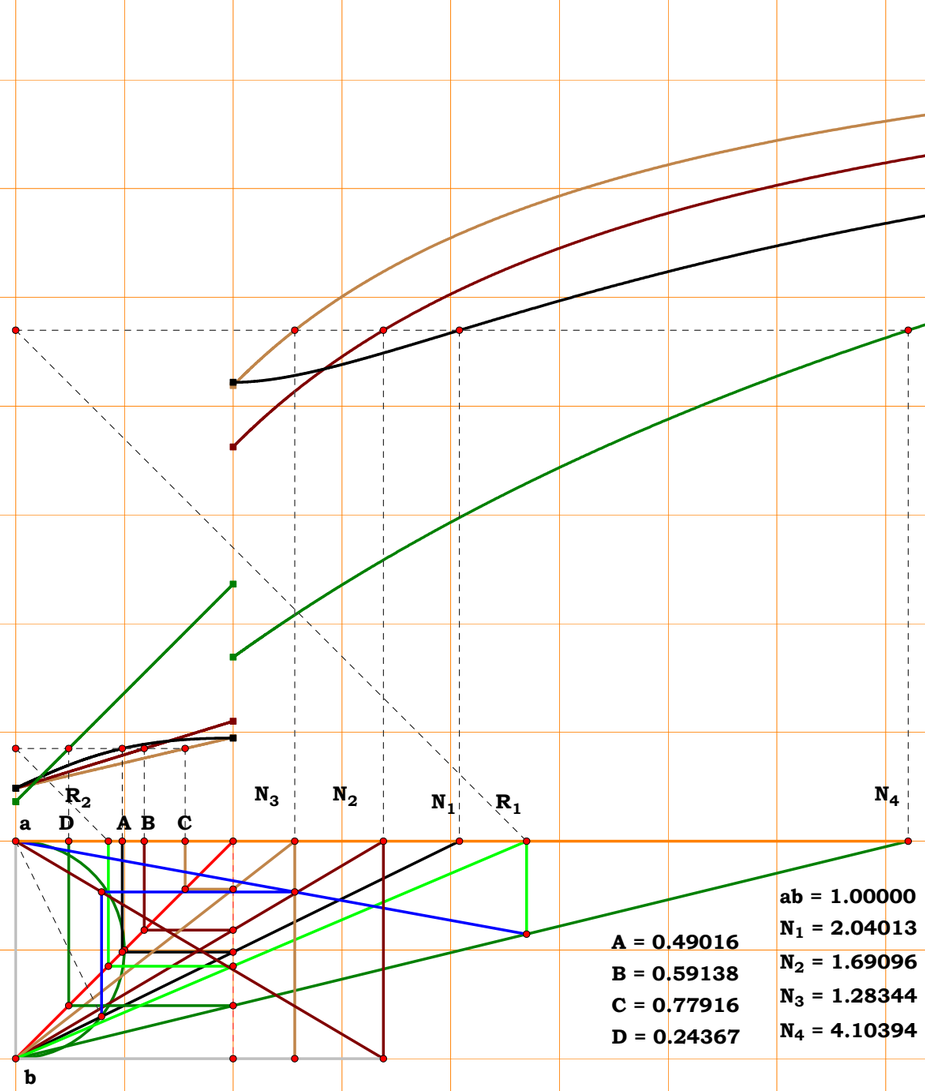
$$R_1 - \frac{(A^2+1)}{(A^2 \cdot D + A \cdot B \cdot C + D)} = 0.00000$$

$$\frac{(A^2+1)}{(A^2 \cdot D + A \cdot B \cdot C + D)} - \frac{N_2 \cdot N_3 \cdot N_4 \cdot (N_1^{\,2}+1)}{N_2 \cdot N_3 \cdot (N_1^{\,2}+1) + N_1 \cdot N_4} = 0.00000$$

$R_2 = 0.42577$

$$\frac{(A^2 \cdot D + A \cdot B \cdot C + D)}{(A^2+1)} = 0.42577$$

$$R_2 - \frac{(A^2 \cdot D + A \cdot B \cdot C + D)}{(A^2+1)} = 0.00000$$



A = 0.49016
B = 0.59138
C = 0.77916
D = 0.24367

ab = 1.00000
N_1 = 2.04013
N_2 = 1.69096
N_3 = 1.28344
N_4 = 4.10394

R_1 = 2.34867

$$\frac{N_2 \cdot N_3 \cdot N_4 \cdot (N_1^2+1)}{N_2 \cdot N_3 \cdot (N_1^2+1) + N_1 \cdot N_4} = 2.34867$$

$$\frac{(A^2+1)}{(A^2 \cdot D + A \cdot B \cdot C + D)} = 2.34867$$

$$R_1 - \frac{N_2 \cdot N_3 \cdot N_4 \cdot (N_1^2+1)}{N_2 \cdot N_3 \cdot (N_1^2+1) + N_1 \cdot N_4} = 0.00000$$

$$R_1 - \frac{(A^2+1)}{(A^2 \cdot D + A \cdot B \cdot C + D)} = 0.00000$$

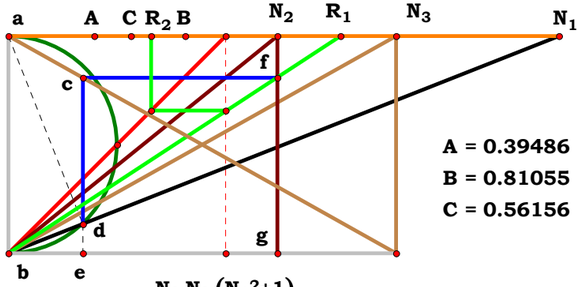
$$\frac{(A^2+1)}{(A^2 \cdot D + A \cdot B \cdot C + D)} - \frac{N_2 \cdot N_3 \cdot N_4 \cdot (N_1^2+1)}{N_2 \cdot N_3 \cdot (N_1^2+1) + N_1 \cdot N_4} = 0.00000$$

R_2 = 0.42577

$$\frac{(A^2 \cdot D + A \cdot B \cdot C + D)}{(A^2+1)} = 0.42577$$

$$R_2 - \frac{(A^2 \cdot D + A \cdot B \cdot C + D)}{(A^2+1)} = 0.00000$$

2SMT5R4



A = 0.39486
B = 0.81055
C = 0.56156

$R_1 = 1.52658$

ab = 1.00000
$N_1 = 2.53257$
$N_2 = 1.23374$
$N_3 = 1.78075$

$\frac{N_2 \cdot N_3 \cdot (N_1^2+1)}{(N_1^2 \cdot N_3+N_3)-N_1} = 1.52658$

$\frac{(A^2+1)}{(B \cdot ((A^2-A \cdot C)+1))} = 1.52658$

Given.

Unit. $ab := 1$ $N_1 := 2.53257$

$N_2 := 1.23374$ $N_3 := 1.78075$

$A := \frac{1}{N_1}$ $B := \frac{1}{N_2}$ $C := \frac{1}{N_3}$

$R_1 - \frac{N_2 \cdot N_3 \cdot (N_1^2+1)}{(N_1^2 \cdot N_3+N_3)-N_1} = 0.00000$

$R_1 - \frac{(A^2+1)}{(B \cdot ((A^2-A \cdot C)+1))} = 0.00000$

$\frac{(A^2+1)}{(B \cdot ((A^2-A \cdot C)+1))} - \frac{N_2 \cdot N_3 \cdot (N_1^2+1)}{(N_1^2 \cdot N_3+N_3)-N_1} = 0.00000$

$R_2 = 0.65506$

$\frac{(B \cdot ((A^2-A \cdot C)+1))}{(A^2+1)} = 0.65506$

$\frac{(A^2+1)}{(B \cdot ((A^2-A \cdot C)+1))} - \frac{N_2 \cdot N_3 \cdot (N_1^2+1)}{(N_1^2 \cdot N_3+N_3)-N_1} = 0.00000$

Descriptions.

$bN_1 := \sqrt{N_1^2 + 1}$ $bd := \frac{1}{bN_1}$ $be := \frac{N_1 \cdot bd}{bN_1}$

$ce := \frac{(N_3 - be)}{N_3}$ $R_1 := \frac{N_2}{ce}$

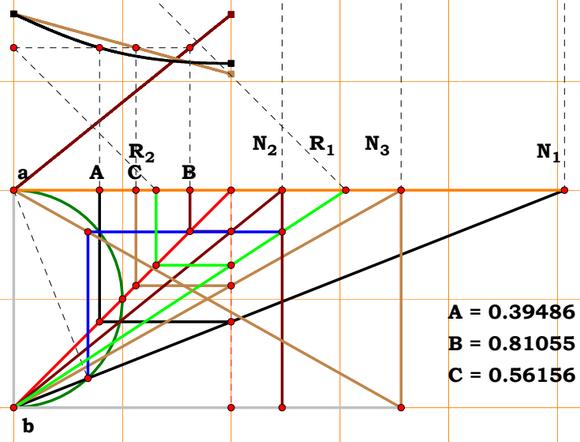
$R_1 = 1.52658$ $R_2 := \frac{1}{R_1}$

Definitions.

$R_1 - \frac{N_2 \cdot N_3 \cdot (N_1^2 + 1)}{N_1^2 \cdot N_3 + N_3 - N_1} = 0$

$N_1 - \frac{1}{A} = 0$ $N_2 - \frac{1}{B} = 0$ $N_3 - \frac{1}{C} = 0$

$R_1 - \frac{(A^2 + 1)}{B \cdot (A^2 - A \cdot C + 1)} = 0$ $R_2 - \frac{B \cdot (A^2 - A \cdot C + 1)}{(A^2 + 1)} = 0$



A = 0.39486
B = 0.81055
C = 0.56156

ab = 1.00000
N_1 = 2.53257
N_2 = 1.23374
N_3 = 1.78075

R_1 = 1.52658

$$\frac{N_2 \cdot N_3 \cdot (N_1^2+1)}{(N_1^2 \cdot N_3+N_3)-N_1} = 1.52658$$

$$\frac{(A^2+1)}{(B \cdot ((A^2-A \cdot C)+1))} = 1.52658$$

$$R_1 - \frac{N_2 \cdot N_3 \cdot (N_1^2+1)}{(N_1^2 \cdot N_3+N_3)-N_1} = 0.00000$$

$$R_1 - \frac{(A^2+1)}{(B \cdot ((A^2-A \cdot C)+1))} = 0.00000$$

$$\frac{(A^2+1)}{(B \cdot ((A^2-A \cdot C)+1))} - \frac{N_2 \cdot N_3 \cdot (N_1^2+1)}{(N_1^2 \cdot N_3+N_3)-N_1} = 0.00000$$

R_2 = 0.65506

$$\frac{(B \cdot ((A^2-A \cdot C)+1))}{(A^2+1)} = 0.65506$$

$$\frac{(A^2+1)}{(B \cdot ((A^2-A \cdot C)+1))} - \frac{N_2 \cdot N_3 \cdot (N_1^2+1)}{(N_1^2 \cdot N_3+N_3)-N_1} = 0.00000$$

2SMT5R5

Given.

Unit. $ab := 1$ $N_1 := 1.62256$

$N_2 := 1.14729$ $N_3 := 1.34202$

$A := \frac{1}{N_1}$ $B := \frac{1}{N_2}$ $C := \frac{1}{N_3}$

Descriptions.

$bN_1 := \sqrt{N_1^{\,2} + 1}$ $bd := \frac{1}{bN_1}$ $be := \frac{N_1 \cdot bd}{bN_1}$

$ce := \frac{(N_3 - be)}{N_3}$ $R_1 := \frac{N_2}{1 - ce}$

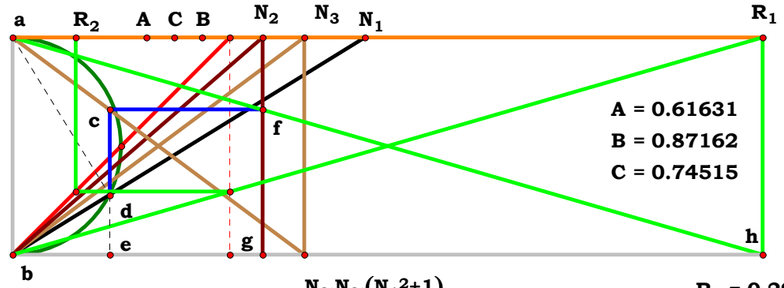
$R_1 = 3.447157$ $R_2 := \frac{1}{R_1}$

Definitions.

$R_1 - \frac{N_2 \cdot N_3 \cdot (N_1^{\,2} + 1)}{N_1} = 0$

$N_1 - \frac{1}{A} = 0$ $N_2 - \frac{1}{B} = 0$ $N_3 - \frac{1}{C} = 0$

$R_1 - \frac{(A^2 + 1)}{A \cdot B \cdot C} = 0$ $R_2 - \frac{A \cdot B \cdot C}{(A^2 + 1)} = 0$



A = 0.61631
B = 0.87162
C = 0.74515

ab = 1.00000
N_1 = 1.62256
N_2 = 1.14729
N_3 = 1.34202

$R_1 = 3.44715$

$\frac{N_2 \cdot N_3 \cdot (N_1^{\,2}+1)}{N_1} = 3.44715$

$\frac{(A^2+1)}{(A \cdot B \cdot C)} = 3.44715$

$R_1 - \frac{N_2 \cdot N_3 \cdot (N_1^{\,2}+1)}{N_1} = 0.00000$

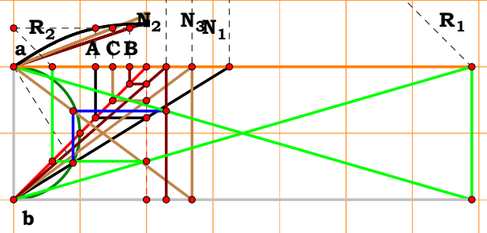
$R_1 - \frac{(A^2+1)}{(A \cdot B \cdot C)} = 0.00000$

$\frac{(A^2+1)}{(A \cdot B \cdot C)} - \frac{N_2 \cdot N_3 \cdot (N_1^{\,2}+1)}{N_1} = 0.00000$

$R_2 = 0.29009$

$\frac{(A \cdot B \cdot C)}{(A^2+1)} = 0.29009$

$R_2 - \frac{(A \cdot B \cdot C)}{(A^2+1)} = 0.00000$



$A = 0.61631$
$B = 0.87162$
$C = 0.74515$

$ab = 1.00000$
$N_1 = 1.62256$
$N_2 = 1.14729$
$N_3 = 1.34202$

$R_1 = 3.44715$

$\frac{N_2 \cdot N_3 \cdot (N_1^2+1)}{N_1} = 3.44715$

$\frac{(A^2+1)}{(A \cdot B \cdot C)} = 3.44715$

$R_1 - \frac{N_2 \cdot N_3 \cdot (N_1^2+1)}{N_1} = 0.00000$

$R_1 - \frac{(A^2+1)}{(A \cdot B \cdot C)} = 0.00000$

$\frac{(A^2+1)}{(A \cdot B \cdot C)} - \frac{N_2 \cdot N_3 \cdot (N_1^2+1)}{N_1} = 0.00000$

$R_2 = 0.29009$

$\frac{(A \cdot B \cdot C)}{(A^2+1)} = 0.29009$

$R_2 - \frac{(A \cdot B \cdot C)}{(A^2+1)} = 0.00000$

2SMT6R0

Given.

Unit. $ab := 1 \quad N_1 := 2.99980$

$N_2 := 1.21721 \quad N_3 := 1.87769$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2} \quad C := \frac{1}{N_3}$

Descriptions.

$gh := \frac{N_3}{N_3 + N_1} \quad ce := N_2 \cdot gh \quad de := \frac{1}{2}$

$cd := \sqrt{de^2 - ce^2} \quad bc := de + cd \quad R_1 := \frac{ce}{bc}$

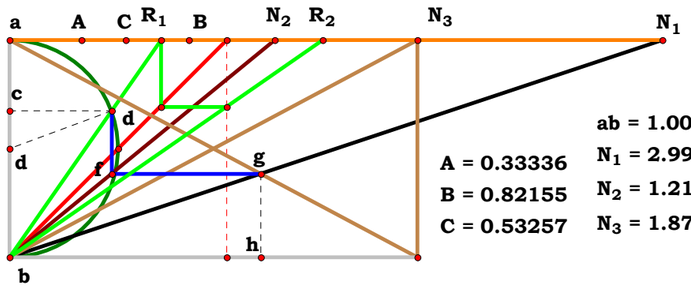
$R_1 = 0.694801 \quad R_2 := \frac{1}{R_1}$

Definitions.

$$R_1 - \frac{2 \cdot N_2 \cdot N_3 \cdot (N_1 + N_3)}{\left[N_1 + N_3 + \sqrt{N_1^2 + N_3 \cdot (2 \cdot N_1 - 4 \cdot N_2^2 \cdot N_3 + N_3)}\right] \cdot (N_1 + N_3)} = 0$$

$N_1 - \frac{1}{A} = 0 \quad N_2 - \frac{1}{B} = 0 \quad N_3 - \frac{1}{C} = 0$

$$R_1 - \frac{2 \cdot A}{\sqrt{[B \cdot (A + C) - 2 \cdot A] \cdot [B \cdot (A + C) + 2 \cdot A]} + B \cdot (A + C)} = 0 \quad R_2 - \frac{\sqrt{[B \cdot (A + C) - 2 \cdot A] \cdot [B \cdot (A + C) + 2 \cdot A]} + B \cdot (A + C)}{2 \cdot A} = 0$$



ab = 1.00000
A = 0.33336 N_1 = 2.99980
B = 0.82155 N_2 = 1.21721
C = 0.53257 N_3 = 1.87769

$R_1 = 0.69480$

$$\frac{2 \cdot N_2 \cdot N_3 \cdot (N_1 + N_3)}{(N_1 + N_3 + \sqrt{N_1^2 + N_3 \cdot ((2 \cdot N_1 - 4 \cdot N_2^2 \cdot N_3) + N_3)}) \cdot (N_1 + N_3)} = 0.69480$$

$$\frac{(2 \cdot A)}{(\sqrt{(B \cdot (A+C) - 2 \cdot A) \cdot (B \cdot (A+C) + 2 \cdot A)} + B \cdot (A+C))} = 0.69480$$

$$R_1 - \frac{2 \cdot N_2 \cdot N_3 \cdot (N_1 + N_3)}{(N_1 + N_3 + \sqrt{N_1^2 + N_3 \cdot ((2 \cdot N_1 - 4 \cdot N_2^2 \cdot N_3) + N_3)}) \cdot (N_1 + N_3)} = 0.00000$$

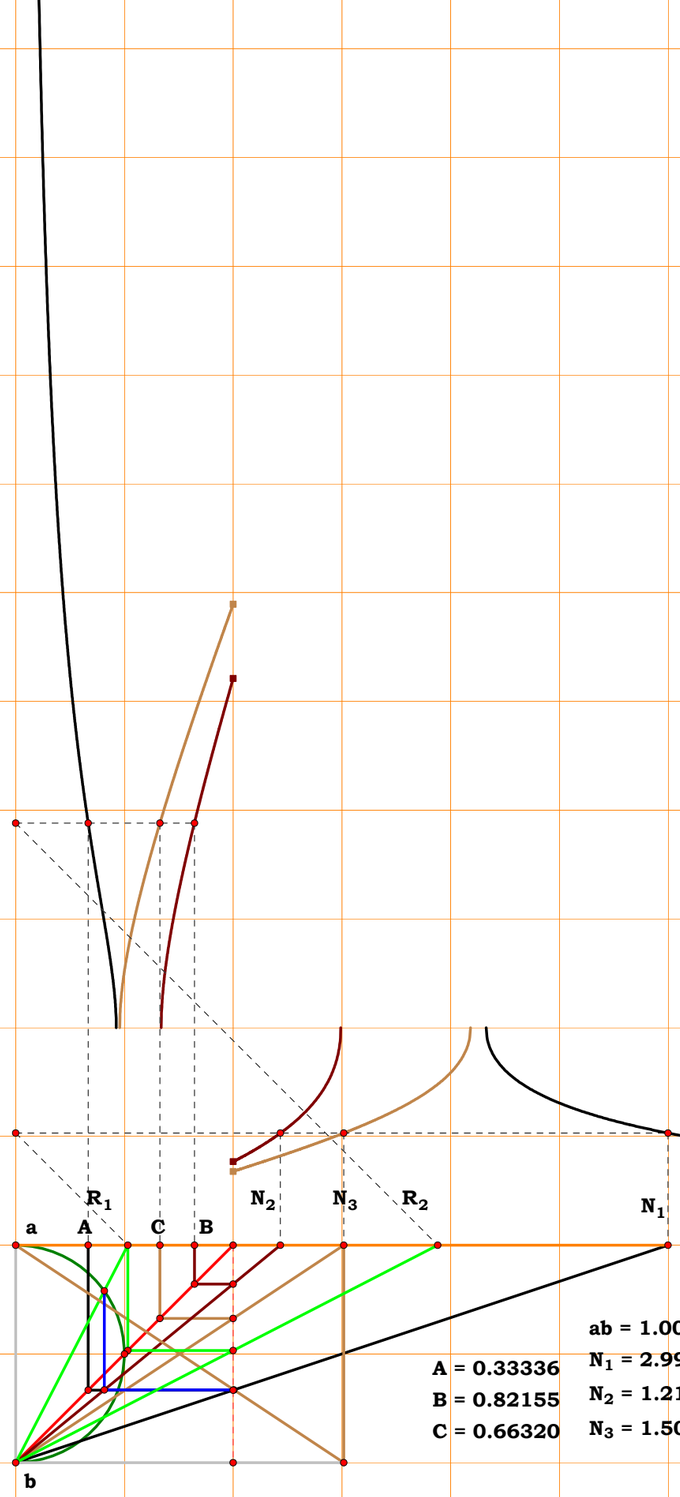
$$R_1 - \frac{(2 \cdot A)}{(\sqrt{(B \cdot (A+C) - 2 \cdot A) \cdot (B \cdot (A+C) + 2 \cdot A)} + B \cdot (A+C))} = 0.00000$$

$$\frac{(2 \cdot A)}{(\sqrt{(B \cdot (A+C) - 2 \cdot A) \cdot (B \cdot (A+C) + 2 \cdot A)} + B \cdot (A+C))} - \frac{2 \cdot N_2 \cdot N_3 \cdot (N_1 + N_3)}{(N_1 + N_3 + \sqrt{N_1^2 + N_3 \cdot ((2 \cdot N_1 - 4 \cdot N_2^2 \cdot N_3) + N_3)}) \cdot (N_1 + N_3)} = 0.00000$$

$R_2 = 1.43926$

$$\frac{(\sqrt{(B \cdot (A+C) - 2 \cdot A) \cdot (B \cdot (A+C) + 2 \cdot A)} + B \cdot (A+C))}{(2 \cdot A)} = 1.43926$$

$$R_2 - \frac{(\sqrt{(B \cdot (A+C) - 2 \cdot A) \cdot (B \cdot (A+C) + 2 \cdot A)} + B \cdot (A+C))}{(2 \cdot A)} = 0.00000$$



$$R_1 - \frac{2 \cdot N_2 \cdot N_3 \cdot (N_1 + N_3)}{(N_1 + N_3 + \sqrt{N_1^2 + N_3 \cdot ((2 \cdot N_1 - 4 \cdot N_2^2 \cdot N_3) + N_3)}) \cdot (N_1 + N_3)} = 0.00000$$

$$R_1 - \frac{(2 \cdot A)}{(\sqrt{(B \cdot (A+C) - 2 \cdot A) \cdot (B \cdot (A+C) + 2 \cdot A)} + B \cdot (A+C))} = 0.00000$$

$$\frac{(2 \cdot A)}{(\sqrt{(B \cdot (A+C) - 2 \cdot A) \cdot (B \cdot (A+C) + 2 \cdot A)} + B \cdot (A+C))} - \frac{2 \cdot N_2 \cdot N_3 \cdot (N_1 + N_3)}{(N_1 + N_3 + \sqrt{N_1^2 + N_3 \cdot ((2 \cdot N_1 - 4 \cdot N_2^2 \cdot N_3) + N_3)}) \cdot (N_1 + N_3)} = 0.00000$$

ab = 1.00000
N_1 = 2.99980
N_2 = 1.21721
N_3 = 1.50784

A = 0.33336
B = 0.82155
C = 0.66320

R_1 = 0.51527

$$\frac{2 \cdot N_2 \cdot N_3 \cdot (N_1 + N_3)}{(N_1 + N_3 + \sqrt{N_1^2 + N_3 \cdot ((2 \cdot N_1 - 4 \cdot N_2^2 \cdot N_3) + N_3)}) \cdot (N_1 + N_3)} = 0.51527$$

$$\frac{(2 \cdot A)}{(\sqrt{(B \cdot (A+C) - 2 \cdot A) \cdot (B \cdot (A+C) + 2 \cdot A)} + B \cdot (A+C))} = 0.51527$$

R_2 = 1.94072

$$\frac{(\sqrt{(B \cdot (A+C) - 2 \cdot A) \cdot (B \cdot (A+C) + 2 \cdot A)} + B \cdot (A+C))}{(2 \cdot A)} = 1.94072$$

$$R_2 - \frac{(\sqrt{(B \cdot (A+C) - 2 \cdot A) \cdot (B \cdot (A+C) + 2 \cdot A)} + B \cdot (A+C))}{(2 \cdot A)} = 0.00000$$

2SMT6R1

Given.

Unit. $ab := 1$ $N_1 := 3.50608$

$N_2 := 1.58420$ $N_3 := 1.90578$

$N_4 := 2.55357$ $N_5 := 1.30650$

$$A := \frac{1}{N_1} \quad B := \frac{1}{N_2} \quad C := \frac{1}{N_3}$$

$$D := \frac{1}{N_4} \quad E := \frac{1}{N_5}$$

Descriptions.

$$hj := \frac{N_2}{N_1 + N_2} \qquad bj := N_3 \cdot hj \qquad bc := 1 - \frac{bj}{N_4}$$

$$ce := \sqrt{bc \cdot (1 - bc)} \qquad ak := \frac{ce}{bc} \qquad ad := 1 - \frac{ak}{N_5}$$

$$df := \sqrt{ad \cdot (1 - ad)} \qquad R_1 := \frac{df}{1 - ad}$$

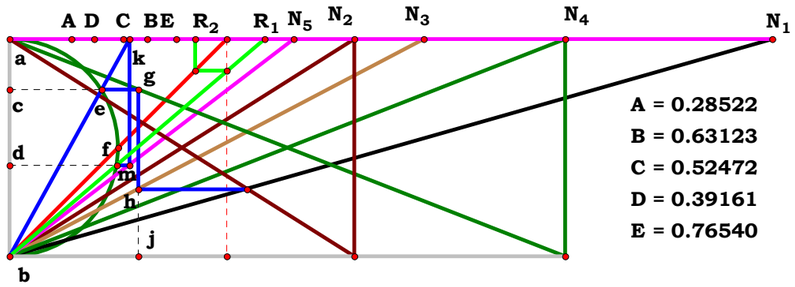
$R_1 = 1.172728$ $\qquad R_2 := \frac{1}{R_1}$

Definitions.

$$R_1 - \frac{\sqrt{\left[N_5 \cdot \sqrt{N_2 \cdot N_3 \cdot \left(N_1 \cdot N_4 - N_2 \cdot N_3 + N_2 \cdot N_4\right)} - N_2 \cdot N_3\right] \cdot \left(N_1 \cdot N_4 - N_2 \cdot N_3 + N_2 \cdot N_4\right)}}{\sqrt{N_4 \cdot N_2{}^2 \cdot N_3 - N_2{}^2 \cdot N_3{}^2 + N_1 \cdot N_4 \cdot N_2 \cdot N_3}} = 0$$

$$N_1 - \frac{1}{A} = 0 \qquad N_2 - \frac{1}{B} = 0 \qquad N_3 - \frac{1}{C} = 0 \qquad N_4 - \frac{1}{D} = 0 \qquad N_5 - \frac{1}{E} = 0$$

$$R_1 - \frac{\sqrt{A \cdot D} \cdot \sqrt{B \cdot C \cdot \left(\sqrt{A \cdot C - A \cdot D + B \cdot C} - E \cdot \sqrt{A \cdot D}\right)}}{\sqrt{A \cdot B \cdot C \cdot D \cdot E \cdot \sqrt{A \cdot D}}} = 0 \qquad R_2 - \frac{\sqrt{A \cdot B \cdot C \cdot D \cdot E \cdot \sqrt{A \cdot D}}}{\sqrt{A \cdot D} \cdot \sqrt{B \cdot C \cdot \left(\sqrt{A \cdot C - A \cdot D + B \cdot C} - E \cdot \sqrt{A \cdot D}\right)}} = 0$$



A = 0.28522
B = 0.63123
C = 0.52472
D = 0.39161
E = 0.76540

ab = 1.00000
N_1 = 3.50608
N_2 = 1.58420
N_3 = 1.90578
N_4 = 2.55357
N_5 = 1.30650

$R_1 = 1.17273$

$$\frac{\sqrt{\left(N_5 \cdot \sqrt{N_2 \cdot N_3 \cdot \left(\left(N_1 \cdot N_4 - N_2 \cdot N_3\right) + N_2 \cdot N_4\right)} - N_2 \cdot N_3\right) \cdot \left(\left(N_1 \cdot N_4 - N_2 \cdot N_3\right) + N_2 \cdot N_4\right)}}{\sqrt{\left(N_2{}^2 \cdot N_3 \cdot N_4 - N_2{}^2 \cdot N_3{}^2\right) + N_1 \cdot N_2 \cdot N_3 \cdot N_4}} = 1.17273$$

$$\frac{\left(\sqrt{A \cdot D} \cdot \sqrt{B \cdot C \cdot \left(\sqrt{\left(A \cdot C - A \cdot D\right) + B \cdot C} - E \cdot \sqrt{A \cdot D}\right)}\right)}{\sqrt{A \cdot B \cdot C \cdot D \cdot E \cdot \sqrt{A \cdot D}}} = 1.17273$$

$$R_1 - \frac{\sqrt{\left(N_5 \cdot \sqrt{N_2 \cdot N_3 \cdot \left(\left(N_1 \cdot N_4 - N_2 \cdot N_3\right) + N_2 \cdot N_4\right)} - N_2 \cdot N_3\right) \cdot \left(\left(N_1 \cdot N_4 - N_2 \cdot N_3\right) + N_2 \cdot N_4\right)}}{\sqrt{\left(N_2{}^2 \cdot N_3 \cdot N_4 - N_2{}^2 \cdot N_3{}^2\right) + N_1 \cdot N_2 \cdot N_3 \cdot N_4}} = 0.00000$$

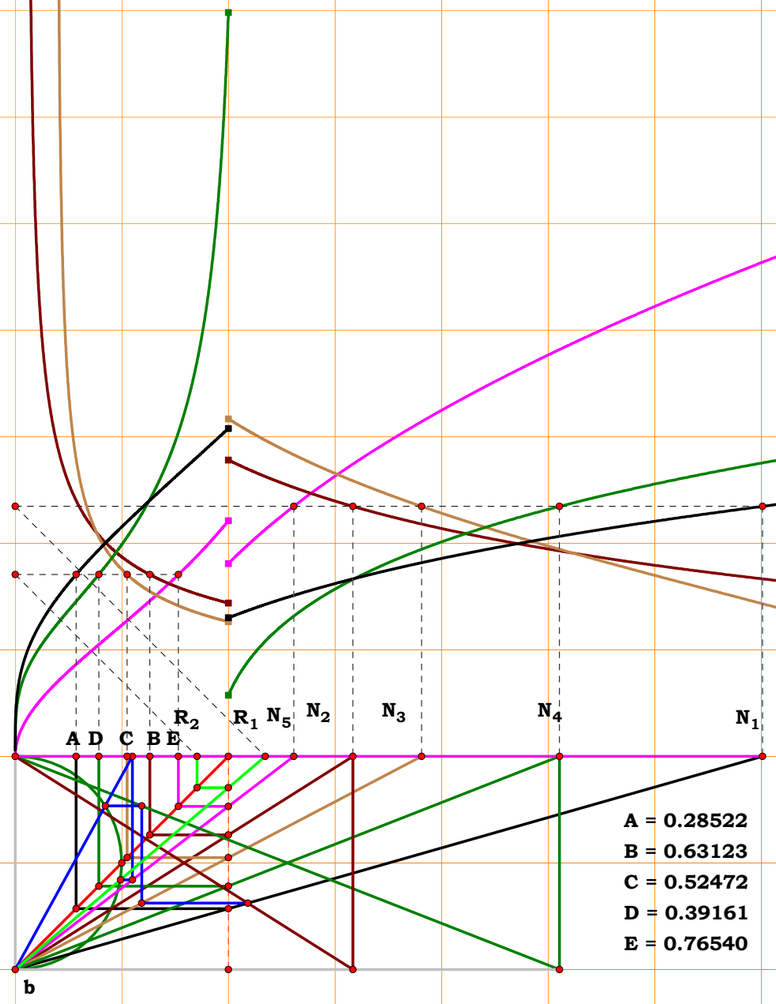
$$R_1 - \frac{\left(\sqrt{A \cdot D} \cdot \sqrt{B \cdot C \cdot \left(\sqrt{\left(A \cdot C - A \cdot D\right) + B \cdot C} - E \cdot \sqrt{A \cdot D}\right)}\right)}{\sqrt{A \cdot B \cdot C \cdot D \cdot E \cdot \sqrt{A \cdot D}}} = 0.00000$$

$$\frac{\left(\sqrt{A \cdot D} \cdot \sqrt{B \cdot C \cdot \left(\sqrt{\left(A \cdot C - A \cdot D\right) + B \cdot C} - E \cdot \sqrt{A \cdot D}\right)}\right)}{\sqrt{A \cdot B \cdot C \cdot D \cdot E \cdot \sqrt{A \cdot D}}} - \frac{\sqrt{\left(N_5 \cdot \sqrt{N_2 \cdot N_3 \cdot \left(\left(N_1 \cdot N_4 - N_2 \cdot N_3\right) + N_2 \cdot N_4\right)} - N_2 \cdot N_3\right) \cdot \left(\left(N_1 \cdot N_4 - N_2 \cdot N_3\right) + N_2 \cdot N_4\right)}}{\sqrt{\left(N_2{}^2 \cdot N_3 \cdot N_4 - N_2{}^2 \cdot N_3{}^2\right) + N_1 \cdot N_2 \cdot N_3 \cdot N_4}} = 0.00000$$

$R_2 = 0.85271$

$$\frac{\sqrt{A \cdot B \cdot C \cdot D \cdot E \cdot \sqrt{A \cdot D}}}{\left(\sqrt{A \cdot D} \cdot \sqrt{B \cdot C \cdot \left(\sqrt{\left(A \cdot C - A \cdot D\right) + B \cdot C} - E \cdot \sqrt{A \cdot D}\right)}\right)} = 0.85271$$

$$R_2 - \frac{\sqrt{A \cdot B \cdot C \cdot D \cdot E \cdot \sqrt{A \cdot D}}}{\left(\sqrt{A \cdot D} \cdot \sqrt{B \cdot C \cdot \left(\sqrt{\left(A \cdot C - A \cdot D\right) + B \cdot C} - E \cdot \sqrt{A \cdot D}\right)}\right)} = 0.00000$$



$A = 0.28522$

$B = 0.63123$

$C = 0.52472$

$D = 0.39161$

$E = 0.76540$

$ab = 1.00000$

$N_1 = 3.50608$

$N_2 = 1.58420$

$N_3 = 1.90578$

$N_4 = 2.55357$

$N_5 = 1.30650$

$$R_1 = 1.17273$$

$$\frac{\sqrt{\left(N_5\cdot\sqrt{N_2\cdot N_3\cdot\left(\left(N_1\cdot N_4-N_2\cdot N_3\right)+N_2\cdot N_4\right)}-N_2\cdot N_3\right)\cdot\left(\left(N_1\cdot N_4-N_2\cdot N_3\right)+N_2\cdot N_4\right)}}{\sqrt{\left(N_2^2\cdot N_3\cdot N_4-N_2^2\cdot N_3^2\right)+N_1\cdot N_2\cdot N_3\cdot N_4}} = 1.17273$$

$$\frac{\left(\sqrt{A\cdot D}\cdot\sqrt{B\cdot C\cdot\left(\sqrt{\left(A\cdot C-A\cdot D\right)+B\cdot C-E\cdot\sqrt{A\cdot D}}\right)}\right)}{\sqrt{A\cdot B\cdot C\cdot D\cdot E\cdot\sqrt{A\cdot D}}} = 1.17273$$

$$R_1-\frac{\sqrt{\left(N_5\cdot\sqrt{N_2\cdot N_3\cdot\left(\left(N_1\cdot N_4-N_2\cdot N_3\right)+N_2\cdot N_4\right)}-N_2\cdot N_3\right)\cdot\left(\left(N_1\cdot N_4-N_2\cdot N_3\right)+N_2\cdot N_4\right)}}{\sqrt{\left(N_2^2\cdot N_3\cdot N_4-N_2^2\cdot N_3^2\right)+N_1\cdot N_2\cdot N_3\cdot N_4}} = 0.00000$$

$$R_1-\frac{\left(\sqrt{A\cdot D}\cdot\sqrt{B\cdot C\cdot\left(\sqrt{\left(A\cdot C-A\cdot D\right)+B\cdot C-E\cdot\sqrt{A\cdot D}}\right)}\right)}{\sqrt{A\cdot B\cdot C\cdot D\cdot E\cdot\sqrt{A\cdot D}}} = 0.00000$$

$$\frac{\left(\sqrt{A\cdot D}\cdot\sqrt{B\cdot C\cdot\left(\sqrt{\left(A\cdot C-A\cdot D\right)+B\cdot C-E\cdot\sqrt{A\cdot D}}\right)}\right)}{\sqrt{A\cdot B\cdot C\cdot D\cdot E\cdot\sqrt{A\cdot D}}}-\frac{\sqrt{\left(N_5\cdot\sqrt{N_2\cdot N_3\cdot\left(\left(N_1\cdot N_4-N_2\cdot N_3\right)+N_2\cdot N_4\right)}-N_2\cdot N_3\right)\cdot\left(\left(N_1\cdot N_4-N_2\cdot N_3\right)+N_2\cdot N_4\right)}}{\sqrt{\left(N_2^2\cdot N_3\cdot N_4-N_2^2\cdot N_3^2\right)+N_1\cdot N_2\cdot N_3\cdot N_4}} = 0.00000$$

$$R_2 = 0.85271$$

$$\frac{\sqrt{A\cdot B\cdot C\cdot D\cdot E\cdot\sqrt{A\cdot D}}}{\left(\sqrt{A\cdot D}\cdot\sqrt{B\cdot C\cdot\left(\sqrt{\left(A\cdot C-A\cdot D\right)+B\cdot C-E\cdot\sqrt{A\cdot D}}\right)}\right)} = 0.85271$$

$$R_2-\frac{\sqrt{A\cdot B\cdot C\cdot D\cdot E\cdot\sqrt{A\cdot D}}}{\left(\sqrt{A\cdot D}\cdot\sqrt{B\cdot C\cdot\left(\sqrt{\left(A\cdot C-A\cdot D\right)+B\cdot C-E\cdot\sqrt{A\cdot D}}\right)}\right)} = 0.00000$$

2SMT6R2

Given.

Unit. $ab := 1$

$N_1 := 3.67140 \quad N_2 := 2.28983$

$N_3 := 1.15231 \quad N_4 := 1.82935$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2} \quad C := \frac{1}{N_3} \quad D := \frac{1}{N_4}$

Descriptions.

$bd := \frac{N_2}{N_1 + N_2} \quad df := \sqrt{bd \cdot (1 - bd)}$

$ao := \frac{df}{bd} \quad bj := \frac{ao \cdot N_3}{ao + N_3} \quad bc := \frac{bj}{N_4}$

$ce := \sqrt{bc \cdot (1 - bc)} \quad R_1 := \frac{ce}{bc}$

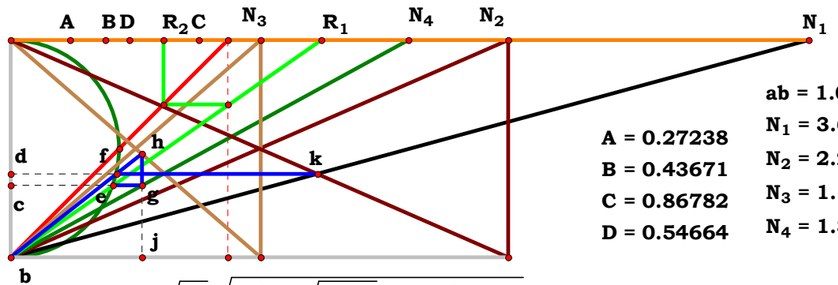
$R_1 = 1.425576 \quad R_2 := \frac{1}{R_1}$

Definitions.

$$R_1 - \frac{\sqrt{N_2} \cdot \sqrt{N_3^2 \cdot N_4 \cdot \sqrt{N_1 \cdot N_2} - N_1 \cdot N_3 \cdot (N_3 - N_4)}}{N_3 \cdot \sqrt{N_1 \cdot N_2}} = 0$$

$N_1 - \frac{1}{A} = 0 \quad N_2 - \frac{1}{B} = 0 \quad N_3 - \frac{1}{C} = 0 \quad N_4 - \frac{1}{D} = 0$

$$R_1 - \frac{(A \cdot B)^{\frac{1}{4}} \cdot \sqrt{A + \sqrt{A \cdot B} \cdot (C - D)}}{\sqrt{B} \cdot \sqrt{A \cdot D}} = 0 \quad R_2 - \frac{\sqrt{B} \cdot \sqrt{A \cdot D}}{(A \cdot B)^{\frac{1}{4}} \cdot \sqrt{A + \sqrt{A \cdot B} \cdot (C - D)}} = 0$$



A = 0.27238
B = 0.43671
C = 0.86782
D = 0.54664

ab = 1.00000
N1 = 3.67140
N2 = 2.28983
N3 = 1.15231
N4 = 1.82935

$$R_1 - \frac{\sqrt{N_2} \cdot \sqrt{N_3^2 \cdot N_4 \cdot \sqrt{N_1 \cdot N_2} - N_1 \cdot N_3 \cdot (N_3 - N_4)}}{N_3 \cdot \sqrt{N_1 \cdot N_2}} = 0.00000$$

$$R_1 - \frac{\left((A \cdot B)^{\frac{1}{4}} \cdot \sqrt{A + \sqrt{A \cdot B} \cdot (C - D)}\right)}{\sqrt{A \cdot B \cdot D}} = 0.00000$$

$$\frac{\left((A \cdot B)^{\frac{1}{4}} \cdot \sqrt{A + \sqrt{A \cdot B} \cdot (C - D)}\right)}{\sqrt{A \cdot B \cdot D}} - \frac{\sqrt{N_2} \cdot \sqrt{N_3^2 \cdot N_4 \cdot \sqrt{N_1 \cdot N_2} - N_1 \cdot N_3 \cdot (N_3 - N_4)}}{N_3 \cdot \sqrt{N_1 \cdot N_2}} = 0.00000$$

$R_1 = 1.42557$

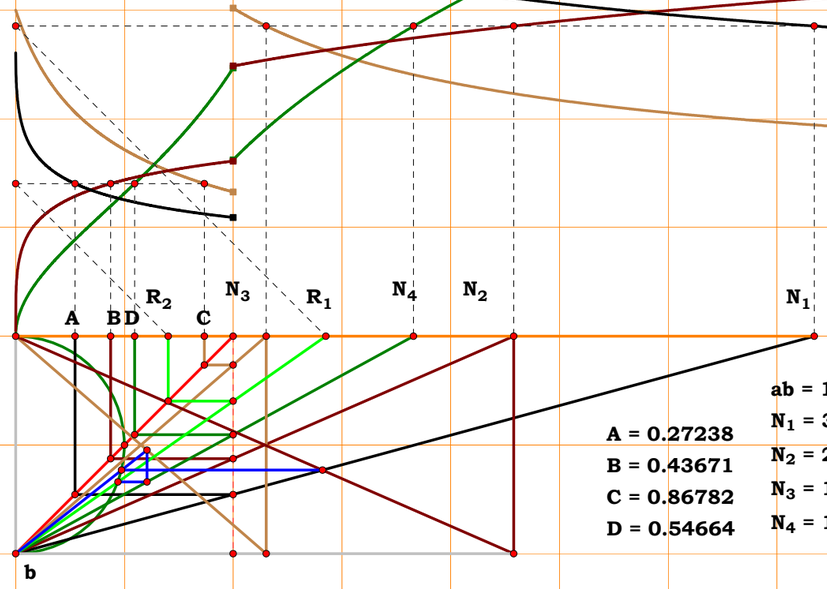
$$\frac{\sqrt{N_2} \cdot \sqrt{N_3^2 \cdot N_4 \cdot \sqrt{N_1 \cdot N_2} - N_1 \cdot N_3 \cdot (N_3 - N_4)}}{N_3 \cdot \sqrt{N_1 \cdot N_2}} = 1.42557$$

$$\frac{\left((A \cdot B)^{\frac{1}{4}} \cdot \sqrt{A + \sqrt{A \cdot B} \cdot (C - D)}\right)}{\sqrt{A \cdot B \cdot D}} = 1.42557$$

$R_2 = 0.70147$

$$\frac{\sqrt{A \cdot B \cdot D}}{\left((A \cdot B)^{\frac{1}{4}} \cdot \sqrt{A + \sqrt{A \cdot B} \cdot (C - D)}\right)} = 0.70147$$

$$R_2 - \frac{\sqrt{A \cdot B \cdot D}}{\left((A \cdot B)^{\frac{1}{4}} \cdot \sqrt{A + \sqrt{A \cdot B} \cdot (C - D)}\right)} = 0.00000$$



A = 0.27238
B = 0.43671
C = 0.86782
D = 0.54664

ab = 1.00000
N_1 = 3.67140
N_2 = 2.28983
N_3 = 1.15231
N_4 = 1.82935

$R_2 = 0.70147$

$$\frac{\sqrt{A \cdot B \cdot D}}{\left((A \cdot B)^{\frac{1}{4}} \cdot \sqrt{A + \sqrt{A \cdot B \cdot (C-D)}}\right)} = 0.70147$$

$$R_2 - \frac{\sqrt{A \cdot B \cdot D}}{\left((A \cdot B)^{\frac{1}{4}} \cdot \sqrt{A + \sqrt{A \cdot B \cdot (C-D)}}\right)} = 0.00000$$

$R_1 = 1.42557$

$$\frac{\sqrt{N_2} \cdot \sqrt{N_3^2 \cdot N_4 \cdot \sqrt{N_1 \cdot N_2} - N_1 \cdot N_3 \cdot (N_3 - N_4)}}{N_3 \cdot \sqrt{N_1 \cdot N_2}} = 1.42557$$

$$\frac{\left((A \cdot B)^{\frac{1}{4}} \cdot \sqrt{A + \sqrt{A \cdot B \cdot (C-D)}}\right)}{\sqrt{A \cdot B \cdot D}} = 1.42557$$

$$R_1 - \frac{\sqrt{N_2} \cdot \sqrt{N_3^2 \cdot N_4 \cdot \sqrt{N_1 \cdot N_2} - N_1 \cdot N_3 \cdot (N_3 - N_4)}}{N_3 \cdot \sqrt{N_1 \cdot N_2}} = 0.00000$$

$$R_1 - \frac{\left((A \cdot B)^{\frac{1}{4}} \cdot \sqrt{A + \sqrt{A \cdot B \cdot (C-D)}}\right)}{\sqrt{A \cdot B \cdot D}} = 0.00000$$

$$\frac{\left((A \cdot B)^{\frac{1}{4}} \cdot \sqrt{A + \sqrt{A \cdot B \cdot (C-D)}}\right)}{\sqrt{A \cdot B \cdot D}} - \frac{\sqrt{N_2} \cdot \sqrt{N_3^2 \cdot N_4 \cdot \sqrt{N_1 \cdot N_2} - N_1 \cdot N_3 \cdot (N_3 - N_4)}}{N_3 \cdot \sqrt{N_1 \cdot N_2}} = 0.00000$$

2SMT6R3

Given.

Unit. $ab := 1$

$N_1 := 2.88263 \quad N_2 := 1.33703$

$N_3 := 1.96283 \quad N_4 := 2.42546$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2} \quad C := \frac{1}{N_3} \quad D := \frac{1}{N_4}$

Descriptions.

$fg := \frac{N_2}{N_1 + N_2} \quad bg := N_3 \cdot fg \quad bc := 1 - \frac{bg}{N_4}$

$cd := \sqrt{bc \cdot (1 - bc)} \quad R_1 := \frac{cd}{bc}$

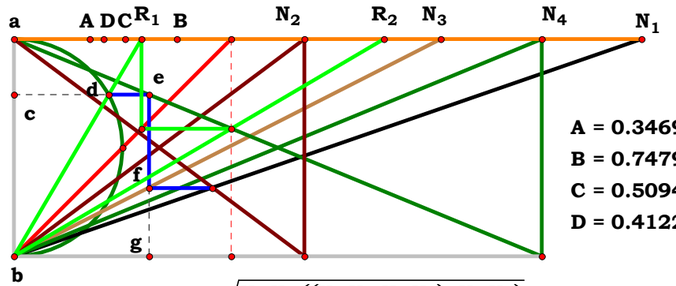
$R_1 = 0.587236 \quad R_2 := \frac{1}{R_1}$

Definitions.

$$R_1 - \frac{\sqrt{N_2 \cdot N_3 \cdot \left(N_1 \cdot N_4 - N_2 \cdot N_3 + N_2 \cdot N_4\right)}}{N_1 \cdot N_4 - N_2 \cdot N_3 + N_2 \cdot N_4} = 0$$

$N_1 - \frac{1}{A} = 0 \quad N_2 - \frac{1}{B} = 0 \quad N_3 - \frac{1}{C} = 0 \quad N_4 - \frac{1}{D} = 0$

$$R_1 - \frac{A \cdot D}{\sqrt{A \cdot D} \cdot \sqrt{A \cdot C - A \cdot D + B \cdot C}} = 0 \quad R_2 - \frac{\sqrt{A \cdot D} \cdot \sqrt{A \cdot C - A \cdot D + B \cdot C}}{A \cdot D} = 0$$



A = 0.34691
B = 0.74792
C = 0.50947
D = 0.41229

ab = 1.00000
N_1 = 2.88263
N_2 = 1.33703
N_3 = 1.96283
N_4 = 2.42546

$$R_1 - \frac{\sqrt{N_2 \cdot N_3 \cdot ((N_1 \cdot N_4 - N_2 \cdot N_3) + N_2 \cdot N_4)}}{(N_1 \cdot N_4 - N_2 \cdot N_3) + N_2 \cdot N_4} = 0.00000$$

$$R_1 - \frac{(A \cdot D)}{\left(\sqrt{A \cdot D} \cdot \sqrt{(A \cdot C - A \cdot D) + B \cdot C}\right)} = 0.00000$$

$$\frac{(A \cdot D)}{\left(\sqrt{A \cdot D} \cdot \sqrt{(A \cdot C - A \cdot D) + B \cdot C}\right)} - \frac{\sqrt{N_2 \cdot N_3 \cdot ((N_1 \cdot N_4 - N_2 \cdot N_3) + N_2 \cdot N_4)}}{(N_1 \cdot N_4 - N_2 \cdot N_3) + N_2 \cdot N_4} = 0.00000$$

$R_1 = 0.58724$

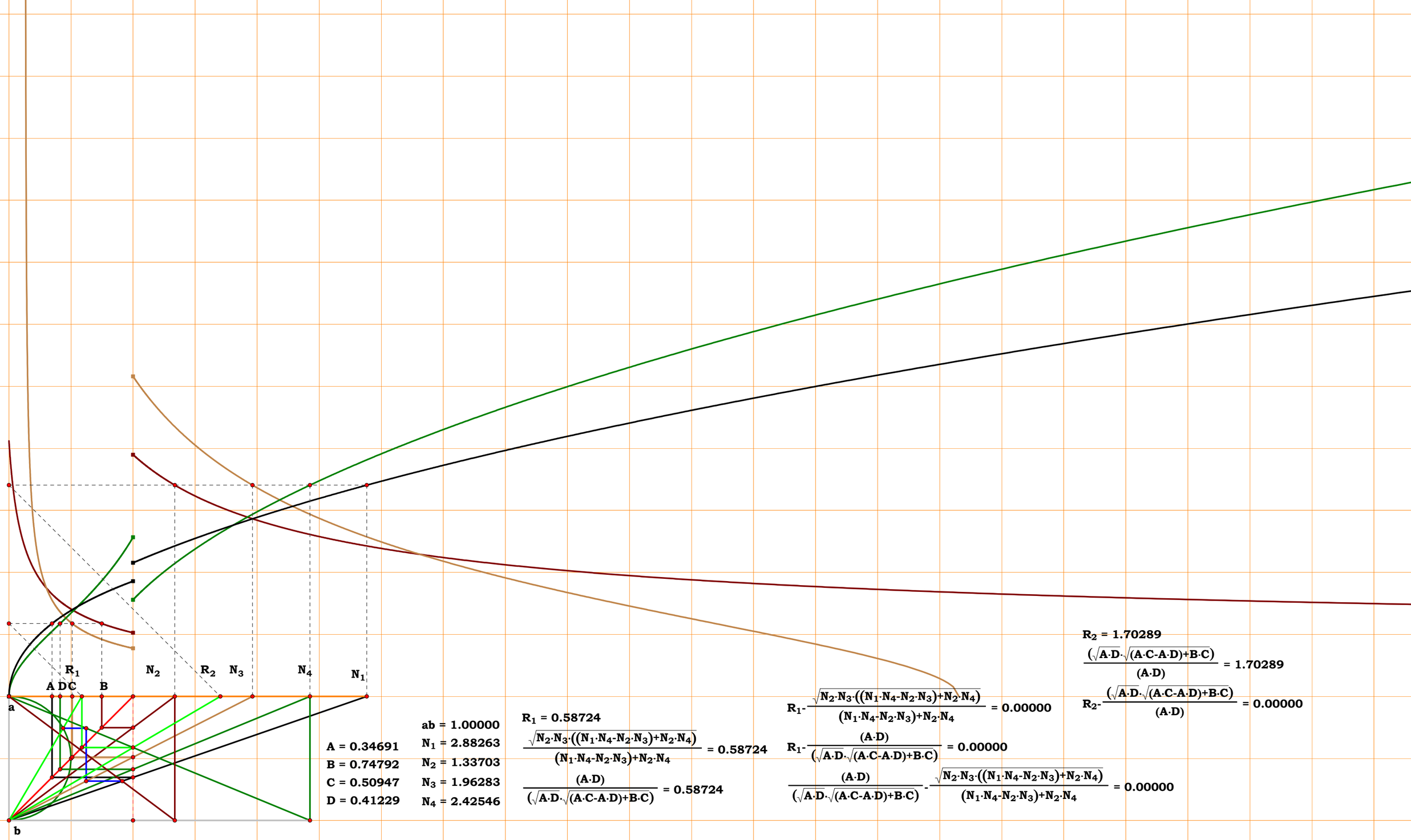
$$\frac{\sqrt{N_2 \cdot N_3 \cdot ((N_1 \cdot N_4 - N_2 \cdot N_3) + N_2 \cdot N_4)}}{(N_1 \cdot N_4 - N_2 \cdot N_3) + N_2 \cdot N_4} = 0.58724$$

$$\frac{(A \cdot D)}{\left(\sqrt{A \cdot D} \cdot \sqrt{(A \cdot C - A \cdot D) + B \cdot C}\right)} = 0.58724$$

$R_2 = 1.70289$

$$\frac{\left(\sqrt{A \cdot D} \cdot \sqrt{(A \cdot C - A \cdot D) + B \cdot C}\right)}{(A \cdot D)} = 1.70289$$

$$R_2 - \frac{\left(\sqrt{A \cdot D} \cdot \sqrt{(A \cdot C - A \cdot D) + B \cdot C}\right)}{(A \cdot D)} = 0.00000$$



$A = 0.34691$
$B = 0.74792$
$C = 0.50947$
$D = 0.41229$

$ab = 1.00000$
$N_1 = 2.88263$
$N_2 = 1.33703$
$N_3 = 1.96283$
$N_4 = 2.42546$

$R_1 = 0.58724$

$$\frac{\sqrt{N_2 \cdot N_3 \cdot ((N_1 \cdot N_4 - N_2 \cdot N_3) + N_2 \cdot N_4)}}{(N_1 \cdot N_4 - N_2 \cdot N_3) + N_2 \cdot N_4} = 0.58724$$

$$\frac{(A \cdot D)}{(\sqrt{A \cdot D} \cdot \sqrt{(A \cdot C - A \cdot D) + B \cdot C})} = 0.58724$$

$$R_1 - \frac{\sqrt{N_2 \cdot N_3 \cdot ((N_1 \cdot N_4 - N_2 \cdot N_3) + N_2 \cdot N_4)}}{(N_1 \cdot N_4 - N_2 \cdot N_3) + N_2 \cdot N_4} = 0.00000$$

$$R_1 - \frac{(A \cdot D)}{(\sqrt{A \cdot D} \cdot \sqrt{(A \cdot C - A \cdot D) + B \cdot C})} = 0.00000$$

$$\frac{(A \cdot D)}{(\sqrt{A \cdot D} \cdot \sqrt{(A \cdot C - A \cdot D) + B \cdot C})} - \frac{\sqrt{N_2 \cdot N_3 \cdot ((N_1 \cdot N_4 - N_2 \cdot N_3) + N_2 \cdot N_4)}}{(N_1 \cdot N_4 - N_2 \cdot N_3) + N_2 \cdot N_4} = 0.00000$$

$R_2 = 1.70289$

$$\frac{(\sqrt{A \cdot D} \cdot \sqrt{(A \cdot C - A \cdot D) + B \cdot C})}{(A \cdot D)} = 1.70289$$

$$R_2 - \frac{(\sqrt{A \cdot D} \cdot \sqrt{(A \cdot C - A \cdot D) + B \cdot C})}{(A \cdot D)} = 0.00000$$

2SMT6R4

Given.

Unit. $ab := 1$ $N_1 := 5.54827$

$N_2 := 2.06582$ $N_3 := 1.43432$

$N_4 := 1.76525$ $N_5 := 3.76850$

$$A := \frac{1}{N_1} \quad B := \frac{1}{N_2} \quad C := \frac{1}{N_3} \quad D := \frac{1}{N_4} \quad E := \frac{1}{N_5}$$

Descriptions.

$$de := \frac{N_2}{N_1 + N_2} \qquad be := N_3 \cdot de \qquad gh := \frac{be}{N_4}$$

$$ag := N_5 \cdot (1 - gh) \qquad bh := \sqrt{1 + ag^2} \qquad bf := \frac{1}{bh}$$

$$R_1 := \frac{ag \cdot bf}{bh} \qquad R_2 := \frac{1}{R_1}$$

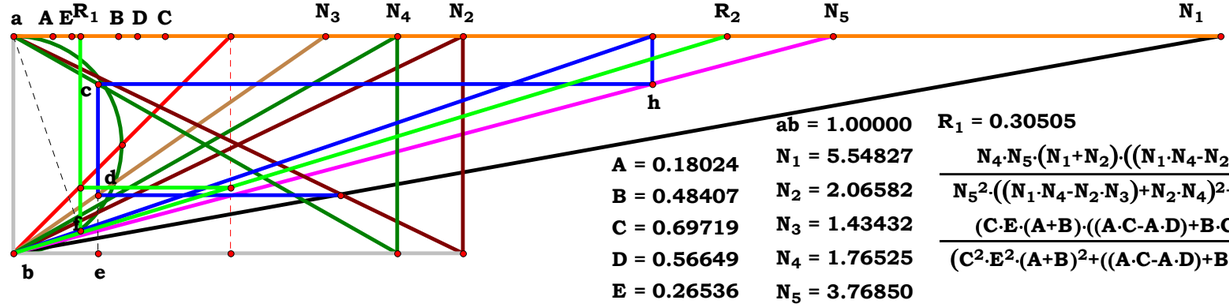
$R_1 = 0.305052$

Definitions.

$$R_1 - \frac{N_4 \cdot N_5 \cdot (N_1 + N_2) \cdot (N_1 \cdot N_4 - N_2 \cdot N_3 + N_2 \cdot N_4)}{N_5^2 \cdot (N_1 \cdot N_4 - N_2 \cdot N_3 + N_2 \cdot N_4)^2 + N_4^2 \cdot (N_1 + N_2)^2} = 0$$

$$N_1 - \frac{1}{A} = 0 \qquad N_2 - \frac{1}{B} = 0 \qquad N_3 - \frac{1}{C} = 0 \qquad N_4 - \frac{1}{D} = 0 \qquad N_5 - \frac{1}{E} = 0$$

$$R_1 - \frac{C \cdot E \cdot (A + B) \cdot (A \cdot C - A \cdot D + B \cdot C)}{C^2 \cdot E^2 \cdot (A + B)^2 + (A \cdot C - A \cdot D + B \cdot C)^2} = 0 \qquad R_2 - \frac{C^2 \cdot E^2 \cdot (A + B)^2 + (A \cdot C - A \cdot D + B \cdot C)^2}{C \cdot E \cdot (A + B) \cdot (A \cdot C - A \cdot D + B \cdot C)} = 0$$



$A = 0.18024$ $B = 0.48407$ $C = 0.69719$ $D = 0.56649$ $E = 0.26536$

$ab = 1.00000$ $N_1 = 5.54827$ $N_2 = 2.06582$ $N_3 = 1.43432$ $N_4 = 1.76525$ $N_5 = 3.76850$

$R_1 = 0.30505$

$$\frac{N_4 \cdot N_5 \cdot (N_1 + N_2) \cdot ((N_1 \cdot N_4 - N_2 \cdot N_3) + N_2 \cdot N_4)}{N_5^2 \cdot ((N_1 \cdot N_4 - N_2 \cdot N_3) + N_2 \cdot N_4)^2 + N_4^2 \cdot (N_1 + N_2)^2} = 0.30505$$

$$\frac{(C \cdot E \cdot (A+B) \cdot ((A \cdot C - A \cdot D) + B \cdot C))}{(C^2 \cdot E^2 \cdot (A+B)^2 + ((A \cdot C - A \cdot D) + B \cdot C)^2)} = 0.30505$$

$$R_1 - \frac{N_4 \cdot N_5 \cdot (N_1 + N_2) \cdot ((N_1 \cdot N_4 - N_2 \cdot N_3) + N_2 \cdot N_4)}{N_5^2 \cdot ((N_1 \cdot N_4 - N_2 \cdot N_3) + N_2 \cdot N_4)^2 + N_4^2 \cdot (N_1 + N_2)^2} = 0.00000$$

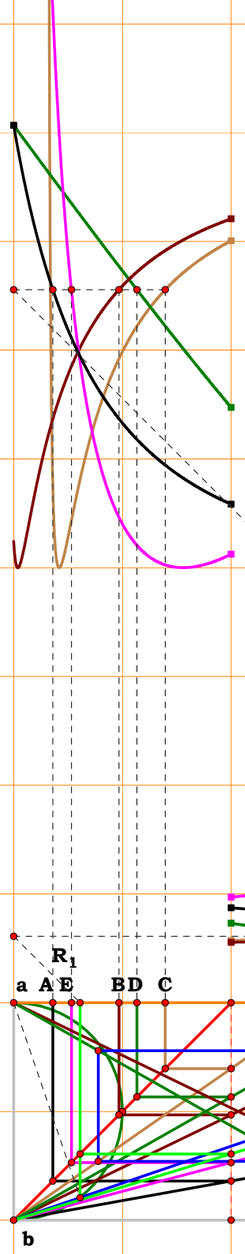
$$R_1 - \frac{(C \cdot E \cdot (A+B) \cdot ((A \cdot C - A \cdot D) + B \cdot C))}{(C^2 \cdot E^2 \cdot (A+B)^2 + ((A \cdot C - A \cdot D) + B \cdot C)^2)} = 0.00000$$

$$\frac{(C \cdot E \cdot (A+B) \cdot ((A \cdot C - A \cdot D) + B \cdot C))}{(C^2 \cdot E^2 \cdot (A+B)^2 + ((A \cdot C - A \cdot D) + B \cdot C)^2)} - \frac{N_4 \cdot N_5 \cdot (N_1 + N_2) \cdot ((N_1 \cdot N_4 - N_2 \cdot N_3) + N_2 \cdot N_4)}{N_5^2 \cdot ((N_1 \cdot N_4 - N_2 \cdot N_3) + N_2 \cdot N_4)^2 + N_4^2 \cdot (N_1 + N_2)^2} = 0.00000$$

$R_2 = 3.27812$

$$\frac{(C^2 \cdot E^2 \cdot (A+B)^2 + ((A \cdot C - A \cdot D) + B \cdot C)^2)}{(C \cdot E \cdot (A+B) \cdot ((A \cdot C - A \cdot D) + B \cdot C))} = 3.27812$$

$$R_2 - \frac{(C^2 \cdot E^2 \cdot (A+B)^2 + ((A \cdot C - A \cdot D) + B \cdot C)^2)}{(C \cdot E \cdot (A+B) \cdot ((A \cdot C - A \cdot D) + B \cdot C))} = 0.00000$$



$$R_1 - \frac{N_4 \cdot N_5 \cdot (N_1+N_2) \cdot ((N_1 \cdot N_4 - N_2 \cdot N_3) + N_2 \cdot N_4)}{N_5^2 \cdot ((N_1 \cdot N_4 - N_2 \cdot N_3) + N_2 \cdot N_4)^2 + N_4^2 \cdot (N_1+N_2)^2} = 0.00000$$

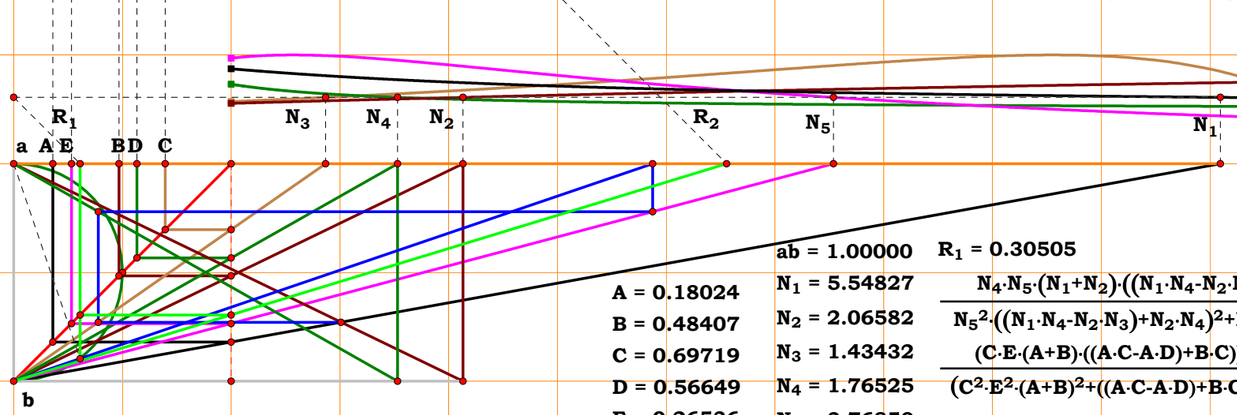
$$R_1 - \frac{(C \cdot E \cdot (A+B) \cdot ((A \cdot C - A \cdot D) + B \cdot C))}{(C^2 \cdot E^2 \cdot (A+B)^2 + ((A \cdot C - A \cdot D) + B \cdot C)^2)} = 0.00000$$

$$\frac{(C \cdot E \cdot (A+B) \cdot ((A \cdot C - A \cdot D) + B \cdot C))}{(C^2 \cdot E^2 \cdot (A+B)^2 + ((A \cdot C - A \cdot D) + B \cdot C)^2)} - \frac{N_4 \cdot N_5 \cdot (N_1+N_2) \cdot ((N_1 \cdot N_4 - N_2 \cdot N_3) + N_2 \cdot N_4)}{N_5^2 \cdot ((N_1 \cdot N_4 - N_2 \cdot N_3) + N_2 \cdot N_4)^2 + N_4^2 \cdot (N_1+N_2)^2} = 0.00000$$

$R_2 = 3.27812$

$$\frac{(C^2 \cdot E^2 \cdot (A+B)^2 + ((A \cdot C - A \cdot D) + B \cdot C)^2)}{(C \cdot E \cdot (A+B) \cdot ((A \cdot C - A \cdot D) + B \cdot C))} = 3.27812$$

$$R_2 - \frac{(C^2 \cdot E^2 \cdot (A+B)^2 + ((A \cdot C - A \cdot D) + B \cdot C)^2)}{(C \cdot E \cdot (A+B) \cdot ((A \cdot C - A \cdot D) + B \cdot C))} = 0.00000$$



$ab = 1.00000$

$A = 0.18024$

$B = 0.48407$

$C = 0.69719$

$D = 0.56649$

$E = 0.26536$

$N_1 = 5.54827$

$N_2 = 2.06582$

$N_3 = 1.43432$

$N_4 = 1.76525$

$N_5 = 3.76850$

$R_1 = 0.30505$

$$\frac{N_4 \cdot N_5 \cdot (N_1+N_2) \cdot ((N_1 \cdot N_4 - N_2 \cdot N_3) + N_2 \cdot N_4)}{N_5^2 \cdot ((N_1 \cdot N_4 - N_2 \cdot N_3) + N_2 \cdot N_4)^2 + N_4^2 \cdot (N_1+N_2)^2} = 0.30505$$

$$\frac{(C \cdot E \cdot (A+B) \cdot ((A \cdot C - A \cdot D) + B \cdot C))}{(C^2 \cdot E^2 \cdot (A+B)^2 + ((A \cdot C - A \cdot D) + B \cdot C)^2)} = 0.30505$$

2SMT6R5

Given.

Unit. $ab := 1$

$N_1 := 3.40337 \quad N_2 := 1.34110 \quad N_3 := 2.06655$

$N_4 := 1.88939 \quad N_5 := 1.14022 \quad N_6 := 2.70906$

$$A := \frac{1}{N_1} \quad B := \frac{1}{N_2} \quad C := \frac{1}{N_3}$$

$$D := \frac{1}{N_4} \quad E := \frac{1}{N_5} \quad F := \frac{1}{N_6}$$

Descriptions.

$$fg := \frac{N_2}{N_1 + N_2} \qquad bg := N_3 \cdot fg \qquad ac := \frac{bg}{N_4}$$

$$cd := \sqrt{ac \cdot (1 - ac)} \qquad ah := \frac{cd}{1 - ac} \qquad hj := 1 - \frac{ah}{N_5}$$

$$R_1 := N_6 \cdot (1 - hj) \qquad R_2 := \frac{1}{R_1} \qquad R_1 = 1.589437$$

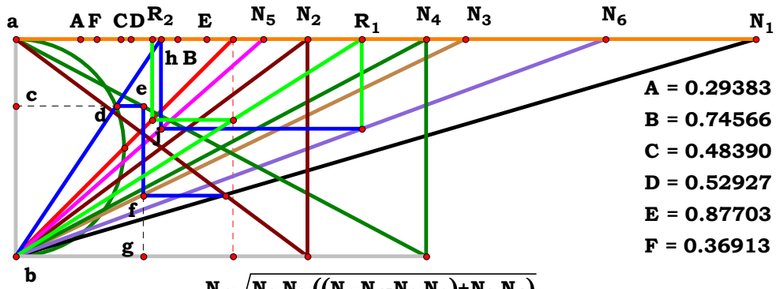
Definitions.

$$R_1 - \frac{N_6 \cdot \sqrt{N_2 \cdot N_3 \cdot \left(N_1 \cdot N_4 - N_2 \cdot N_3 + N_2 \cdot N_4\right)}}{N_5 \cdot \left(N_1 \cdot N_4 - N_2 \cdot N_3 + N_2 \cdot N_4\right)} = 0$$

$$N_1 - \frac{1}{A} = 0 \qquad N_2 - \frac{1}{B} = 0 \qquad N_3 - \frac{1}{C} = 0$$

$$N_4 - \frac{1}{D} = 0 \qquad N_5 - \frac{1}{E} = 0 \qquad N_6 - \frac{1}{F} = 0$$

$$R_1 - \frac{A \cdot D \cdot E}{F \cdot \sqrt{A \cdot D} \cdot \sqrt{A \cdot C - A \cdot D + B \cdot C}} = 0 \qquad R_2 - \frac{F \cdot \sqrt{A \cdot D} \cdot \sqrt{A \cdot C - A \cdot D + B \cdot C}}{A \cdot D \cdot E} = 0$$



$A = 0.29383$
$B = 0.74566$
$C = 0.48390$
$D = 0.52927$
$E = 0.87703$
$F = 0.36913$

$ab = 1.00000$
$N_1 = 3.40337$
$N_2 = 1.34110$
$N_3 = 2.06655$
$N_4 = 1.88939$
$N_5 = 1.14022$
$N_6 = 2.70906$

$R_1 = 1.58944$

$$\frac{N_6 \cdot \sqrt{N_2 \cdot N_3 \cdot \left((N_1 \cdot N_4 - N_2 \cdot N_3) + N_2 \cdot N_4\right)}}{N_5 \cdot \left((N_1 \cdot N_4 - N_2 \cdot N_3) + N_2 \cdot N_4\right)} = 1.58944$$

$$\frac{(A \cdot D \cdot E)}{\left(F \cdot \sqrt{A \cdot D \cdot ((A \cdot C - A \cdot D) + B \cdot C)}\right)} = 1.58944$$

$$R_1 - \frac{N_6 \cdot \sqrt{N_2 \cdot N_3 \cdot \left((N_1 \cdot N_4 - N_2 \cdot N_3) + N_2 \cdot N_4\right)}}{N_5 \cdot \left((N_1 \cdot N_4 - N_2 \cdot N_3) + N_2 \cdot N_4\right)} = 0.00000$$

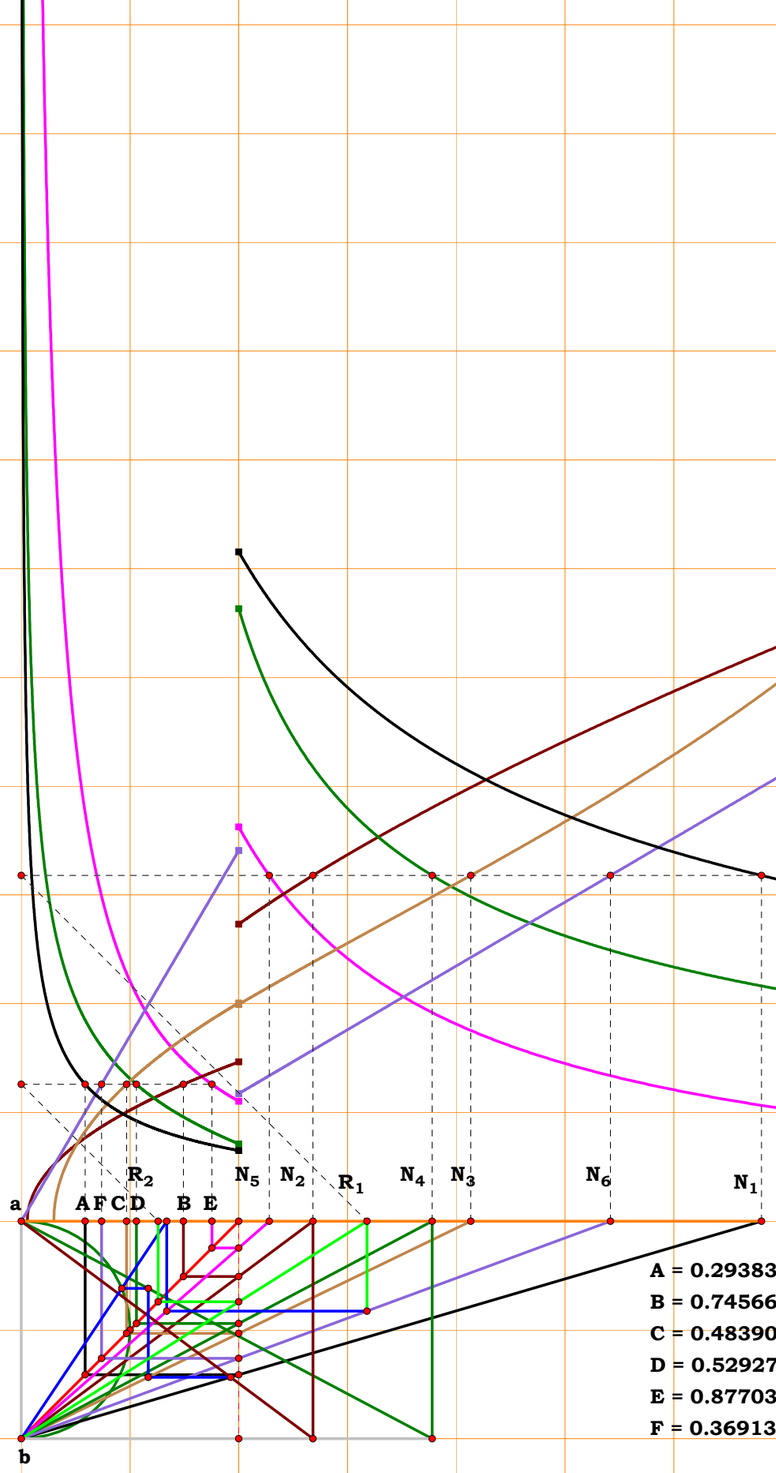
$$R_1 - \frac{(A \cdot D \cdot E)}{\left(F \cdot \sqrt{A \cdot D \cdot ((A \cdot C - A \cdot D) + B \cdot C)}\right)} = 0.00000$$

$$\frac{(A \cdot D \cdot E)}{\left(F \cdot \sqrt{A \cdot D \cdot ((A \cdot C - A \cdot D) + B \cdot C)}\right)} - \frac{N_6 \cdot \sqrt{N_2 \cdot N_3 \cdot \left((N_1 \cdot N_4 - N_2 \cdot N_3) + N_2 \cdot N_4\right)}}{N_5 \cdot \left((N_1 \cdot N_4 - N_2 \cdot N_3) + N_2 \cdot N_4\right)} = 0.00000$$

$R_2 = 0.62915$

$$\frac{\left(F \cdot \sqrt{A \cdot D \cdot ((A \cdot C - A \cdot D) + B \cdot C)}\right)}{(A \cdot D \cdot E)} = 0.62915$$

$$R_2 - \frac{\left(F \cdot \sqrt{A \cdot D \cdot ((A \cdot C - A \cdot D) + B \cdot C)}\right)}{(A \cdot D \cdot E)} = 0.00000$$



A = 0.29383
B = 0.74566
C = 0.48390
D = 0.52927
E = 0.87703
F = 0.36913

ab = 1.00000
N_1 = 3.40337
N_2 = 1.34110
N_3 = 2.06655
N_4 = 1.88939
N_5 = 1.14022
N_6 = 2.70906

$R_1 = 1.58944$

$$\frac{N_6\cdot\sqrt{N_2\cdot N_3\cdot((N_1\cdot N_4-N_2\cdot N_3)+N_2\cdot N_4)}}{N_5\cdot((N_1\cdot N_4-N_2\cdot N_3)+N_2\cdot N_4)} = 1.58944$$

$$\frac{(A\cdot D\cdot E)}{(F\cdot\sqrt{A\cdot D\cdot((A\cdot C-A\cdot D)+B\cdot C)})} = 1.58944$$

$R_2 = 0.62915$

$$\frac{(F\cdot\sqrt{A\cdot D\cdot((A\cdot C-A\cdot D)+B\cdot C)})}{(A\cdot D\cdot E)} = 0.62915$$

$$R_2-\frac{(F\cdot\sqrt{A\cdot D\cdot((A\cdot C-A\cdot D)+B\cdot C)})}{(A\cdot D\cdot E)} = 0.00000$$

$$R_1-\frac{N_6\cdot\sqrt{N_2\cdot N_3\cdot((N_1\cdot N_4-N_2\cdot N_3)+N_2\cdot N_4)}}{N_5\cdot((N_1\cdot N_4-N_2\cdot N_3)+N_2\cdot N_4)} = 0.00000$$

$$R_1-\frac{(A\cdot D\cdot E)}{(F\cdot\sqrt{A\cdot D\cdot((A\cdot C-A\cdot D)+B\cdot C)})} = 0.00000$$

$$\frac{(A\cdot D\cdot E)}{(F\cdot\sqrt{A\cdot D\cdot((A\cdot C-A\cdot D)+B\cdot C)})}-\frac{N_6\cdot\sqrt{N_2\cdot N_3\cdot((N_1\cdot N_4-N_2\cdot N_3)+N_2\cdot N_4)}}{N_5\cdot((N_1\cdot N_4-N_2\cdot N_3)+N_2\cdot N_4)} = 0.00000$$

2SMT6R6

Given.

Unit. $ab := 1$

$N_1 := 4.18964 \quad N_2 := 1.88514$

$N_3 := 1.38998 \quad N_4 := 2.82580$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2} \quad C := \frac{1}{N_3} \quad D := \frac{1}{N_4}$

Descriptions.

$ef := \frac{N_2}{N_1 + N_2} \quad cd := N_3 \cdot ef \quad ac := \frac{1}{2} - \sqrt{\left(\frac{1}{2}\right)^2 - cd^2}$

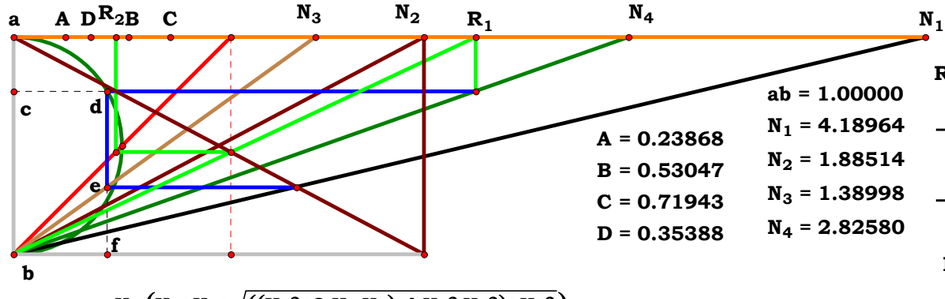
$R_1 := N_4 \cdot (1 - ac) \quad R_1 = 2.127465 \quad R_2 := \frac{1}{R_1}$

Definitions.

$$R_1 - \frac{N_4 \cdot \left(N_1 + N_2 + \sqrt{N_1{}^2 + 2 \cdot N_1 \cdot N_2 - 4 \cdot N_2{}^2 \cdot N_3{}^2 + N_2{}^2}\right)}{2 \cdot (N_1 + N_2)} = 0$$

$N_1 - \frac{1}{A} = 0 \quad N_2 - \frac{1}{B} = 0 \quad N_3 - \frac{1}{C} = 0 \quad N_4 - \frac{1}{D} = 0$

$$R_1 - \frac{\sqrt{[C \cdot (A+B) - 2 \cdot A] \cdot [C \cdot (A+B) + 2 \cdot A]} + C \cdot (A+B)}{2 \cdot D \cdot (A+B) \cdot C} = 0 \qquad R_2 - \frac{2 \cdot D \cdot (A+B) \cdot C}{\sqrt{[C \cdot (A+B) - 2 \cdot A] \cdot [C \cdot (A+B) + 2 \cdot A]} + C \cdot (A+B)} = 0$$



$A = 0.23868$
$B = 0.53047$
$C = 0.71943$
$D = 0.35388$

$ab = 1.00000$
$N_1 = 4.18964$
$N_2 = 1.88514$
$N_3 = 1.38998$
$N_4 = 2.82580$

$R_1 = 2.12746$

$$\frac{N_4 \cdot \left(N_1 + N_2 + \sqrt{((N_1{}^2 + 2 \cdot N_1 \cdot N_2) - 4 \cdot N_2{}^2 \cdot N_3{}^2) + N_2{}^2}\right)}{2 \cdot (N_1 + N_2)} = 2.12746$$

$$\frac{(C \cdot (A+B) + \sqrt{(C \cdot (A+B) - 2 \cdot A) \cdot (2 \cdot A + C \cdot (A+B))})}{(2 \cdot C \cdot D \cdot (A+B))} = 2.12746$$

$R_2 = 0.47004$

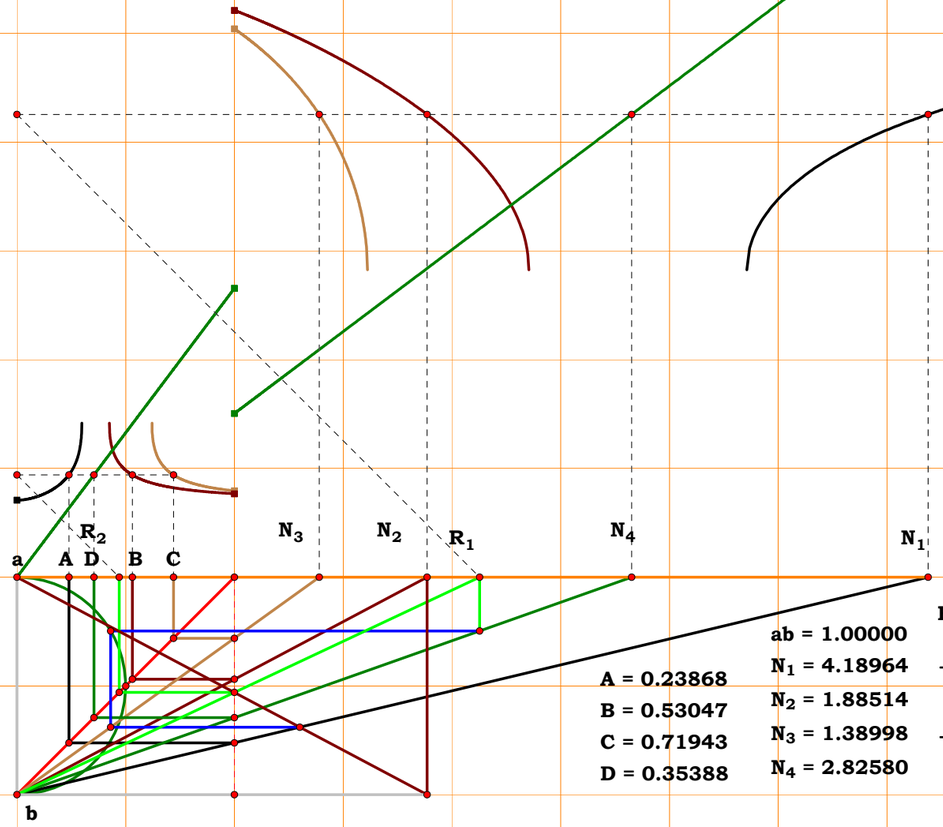
$$\frac{(2 \cdot C \cdot D \cdot (A+B))}{(C \cdot (A+B) + \sqrt{(C \cdot (A+B) - 2 \cdot A) \cdot (2 \cdot A + C \cdot (A+B))})} = 0.47004$$

$$R_2 - \frac{(2 \cdot C \cdot D \cdot (A+B))}{(C \cdot (A+B) + \sqrt{(C \cdot (A+B) - 2 \cdot A) \cdot (2 \cdot A + C \cdot (A+B))})} = 0.00000$$

$$R_1 - \frac{N_4 \cdot \left(N_1 + N_2 + \sqrt{((N_1{}^2 + 2 \cdot N_1 \cdot N_2) - 4 \cdot N_2{}^2 \cdot N_3{}^2) + N_2{}^2}\right)}{2 \cdot (N_1 + N_2)} = 0.00000$$

$$R_1 - \frac{(C \cdot (A+B) + \sqrt{(C \cdot (A+B) - 2 \cdot A) \cdot (2 \cdot A + C \cdot (A+B))})}{(2 \cdot C \cdot D \cdot (A+B))} = 0.00000$$

$$\frac{(C \cdot (A+B) + \sqrt{(C \cdot (A+B) - 2 \cdot A) \cdot (2 \cdot A + C \cdot (A+B))})}{(2 \cdot C \cdot D \cdot (A+B))} - \frac{N_4 \cdot \left(N_1 + N_2 + \sqrt{((N_1{}^2 + 2 \cdot N_1 \cdot N_2) - 4 \cdot N_2{}^2 \cdot N_3{}^2) + N_2{}^2}\right)}{2 \cdot (N_1 + N_2)} = 0.00000$$



$A = 0.23868$
$B = 0.53047$
$C = 0.71943$
$D = 0.35388$

$ab = 1.00000$
$N_1 = 4.18964$
$N_2 = 1.88514$
$N_3 = 1.38998$
$N_4 = 2.82580$

$R_1 = 2.12746$

$$\frac{N_4\cdot\left(N_1+N_2+\sqrt{\left(\left(N_1^2+2\cdot N_1\cdot N_2\right)-4\cdot N_2^2\cdot N_3^2\right)+N_2^2}\right)}{2\cdot\left(N_1+N_2\right)} = 2.12746$$

$$\frac{\left(C\cdot(A+B)+\sqrt{\left(C\cdot(A+B)-2\cdot A\right)\cdot\left(2\cdot A+C\cdot(A+B)\right)}\right)}{(2\cdot C\cdot D\cdot(A+B))} = 2.12746$$

$$R_1-\frac{N_4\cdot\left(N_1+N_2+\sqrt{\left(\left(N_1^2+2\cdot N_1\cdot N_2\right)-4\cdot N_2^2\cdot N_3^2\right)+N_2^2}\right)}{2\cdot\left(N_1+N_2\right)} = 0.00000$$

$$R_1-\frac{\left(C\cdot(A+B)+\sqrt{\left(C\cdot(A+B)-2\cdot A\right)\cdot\left(2\cdot A+C\cdot(A+B)\right)}\right)}{(2\cdot C\cdot D\cdot(A+B))} = 0.00000$$

$$\frac{\left(C\cdot(A+B)+\sqrt{\left(C\cdot(A+B)-2\cdot A\right)\cdot\left(2\cdot A+C\cdot(A+B)\right)}\right)}{(2\cdot C\cdot D\cdot(A+B))}-\frac{N_4\cdot\left(N_1+N_2+\sqrt{\left(\left(N_1^2+2\cdot N_1\cdot N_2\right)-4\cdot N_2^2\cdot N_3^2\right)+N_2^2}\right)}{2\cdot\left(N_1+N_2\right)} = 0.00000$$

$R_2 = 0.47004$

$$\frac{(2\cdot C\cdot D\cdot(A+B))}{\left(C\cdot(A+B)+\sqrt{\left(C\cdot(A+B)-2\cdot A\right)\cdot\left(2\cdot A+C\cdot(A+B)\right)}\right)} = 0.47004$$

$$R_2-\frac{(2\cdot C\cdot D\cdot(A+B))}{\left(C\cdot(A+B)+\sqrt{\left(C\cdot(A+B)-2\cdot A\right)\cdot\left(2\cdot A+C\cdot(A+B)\right)}\right)} = 0.00000$$

2SMT6R7

Given.

Unit. $ab := 1$

$N_1 := 4.01722 \quad N_2 := 1.79409$

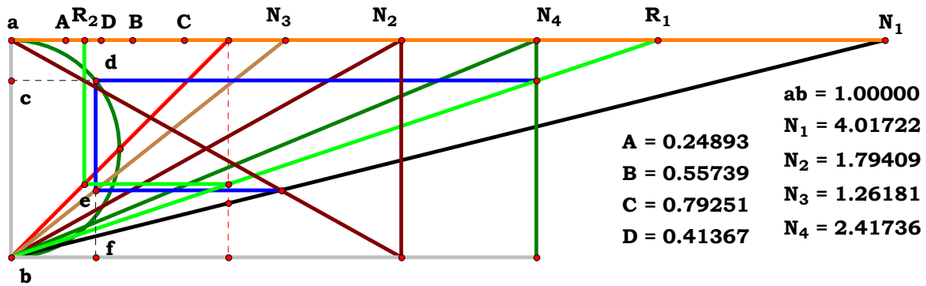
$N_3 := 1.26181 \quad N_4 := 2.41736$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2} \quad C := \frac{1}{N_3} \quad D := \frac{1}{N_4}$

Descriptions.

$ef := \frac{N_2}{N_1 + N_2} \quad cd := ef \cdot N_3 \quad ac := \frac{1}{2} - \sqrt{\left(\frac{1}{2}\right)^2 - cd^2}$

$R_1 := \frac{N_4}{1 - ac} \quad R_2 := \frac{1}{R_1} \quad R_1 = 2.971742$



A = 0.24893
B = 0.55739
C = 0.79251
D = 0.41367

ab = 1.00000
N_1 = 4.01722
N_2 = 1.79409
N_3 = 1.26181
N_4 = 2.41736

$R_1 = 2.97175$

$$\frac{2 \cdot N_4 \cdot (N_1 + N_2)}{N_1 + N_2 + \sqrt{((N_1^2 + 2 \cdot N_1 \cdot N_2) - 4 \cdot N_2^2 \cdot N_3^2) + N_2^2}} = 2.97175$$

$$\frac{(2 \cdot C \cdot (A + B))}{\left(D \cdot \left(C \cdot (A + B) + \sqrt{((A \cdot C + B \cdot C) - 2 \cdot A) \cdot (A \cdot C + B \cdot C + 2 \cdot A)}\right)\right)} = 2.97175$$

$$R_1 - \frac{2 \cdot N_4 \cdot (N_1 + N_2)}{N_1 + N_2 + \sqrt{((N_1^2 + 2 \cdot N_1 \cdot N_2) - 4 \cdot N_2^2 \cdot N_3^2) + N_2^2}} = 0.00000$$

$$R_1 - \frac{(2 \cdot C \cdot (A + B))}{\left(D \cdot \left(C \cdot (A + B) + \sqrt{((A \cdot C + B \cdot C) - 2 \cdot A) \cdot (A \cdot C + B \cdot C + 2 \cdot A)}\right)\right)} = 0.00000$$

$$\frac{(2 \cdot C \cdot (A + B))}{\left(D \cdot \left(C \cdot (A + B) + \sqrt{((A \cdot C + B \cdot C) - 2 \cdot A) \cdot (A \cdot C + B \cdot C + 2 \cdot A)}\right)\right)} - \frac{2 \cdot N_4 \cdot (N_1 + N_2)}{N_1 + N_2 + \sqrt{((N_1^2 + 2 \cdot N_1 \cdot N_2) - 4 \cdot N_2^2 \cdot N_3^2) + N_2^2}} = 0.00000$$

$R_2 = 0.33650$

$$\frac{\left(D \cdot \left(C \cdot (A + B) + \sqrt{((A \cdot C + B \cdot C) - 2 \cdot A) \cdot (A \cdot C + B \cdot C + 2 \cdot A)}\right)\right)}{(2 \cdot C \cdot (A + B))} = 0.33650$$

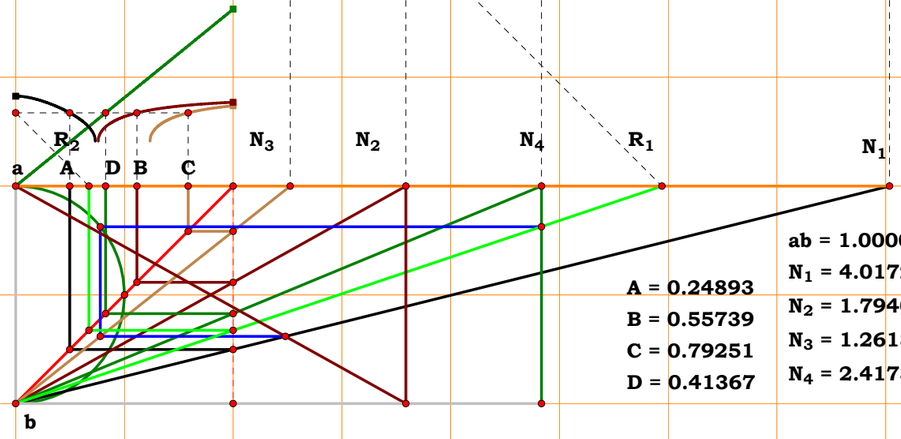
$$R_2 - \frac{\left(D \cdot \left(C \cdot (A + B) + \sqrt{((A \cdot C + B \cdot C) - 2 \cdot A) \cdot (A \cdot C + B \cdot C + 2 \cdot A)}\right)\right)}{(2 \cdot C \cdot (A + B))} = 0.00000$$

Definitions.

$$R_1 - \frac{2 \cdot N_4 \cdot (N_1 + N_2)}{N_1 + N_2 + \sqrt{N_1^2 + 2 \cdot N_1 \cdot N_2 - 4 \cdot N_2^2 \cdot N_3^2 + N_2^2}} = 0$$

$N_1 - \frac{1}{A} = 0 \quad N_2 - \frac{1}{B} = 0 \quad N_3 - \frac{1}{C} = 0 \quad N_4 - \frac{1}{D} = 0$

$$R_1 - \frac{2 \cdot (A + B) \cdot C}{D \cdot \left[C \cdot (A + B) + \sqrt{(A \cdot C + B \cdot C - 2 \cdot A) \cdot (A \cdot C + B \cdot C + 2 \cdot A)}\right]} = 0 \qquad R_2 - \frac{D \cdot \left[C \cdot (A + B) + \sqrt{(A \cdot C + B \cdot C - 2 \cdot A) \cdot (A \cdot C + B \cdot C + 2 \cdot A)}\right]}{2 \cdot (A + B) \cdot C} = 0$$



$$R_1 - \frac{2 \cdot N_4 \cdot (N_1 + N_2)}{N_1 + N_2 + \sqrt{((N_1^2 + 2 \cdot N_1 \cdot N_2) - 4 \cdot N_2^2 \cdot N_3^2) + N_2^2}} = 0.00000$$

$$R_1 - \frac{(2 \cdot C \cdot (A + B))}{(D \cdot (C \cdot (A + B) + \sqrt{((A \cdot C + B \cdot C) - 2 \cdot A) \cdot (A \cdot C + B \cdot C + 2 \cdot A)}))} = 0.00000$$

$$\frac{(2 \cdot C \cdot (A + B))}{(D \cdot (C \cdot (A + B) + \sqrt{((A \cdot C + B \cdot C) - 2 \cdot A) \cdot (A \cdot C + B \cdot C + 2 \cdot A)}))} - \frac{2 \cdot N_4 \cdot (N_1 + N_2)}{N_1 + N_2 + \sqrt{((N_1^2 + 2 \cdot N_1 \cdot N_2) - 4 \cdot N_2^2 \cdot N_3^2) + N_2^2}} = 0.00000$$

A = 0.24893
B = 0.55739
C = 0.79251
D = 0.41367

ab = 1.00000
N_1 = 4.01722
N_2 = 1.79409
N_3 = 1.26181
N_4 = 2.41736

$R_1 = 2.97175$

$$\frac{2 \cdot N_4 \cdot (N_1 + N_2)}{N_1 + N_2 + \sqrt{((N_1^2 + 2 \cdot N_1 \cdot N_2) - 4 \cdot N_2^2 \cdot N_3^2) + N_2^2}} = 2.97175$$

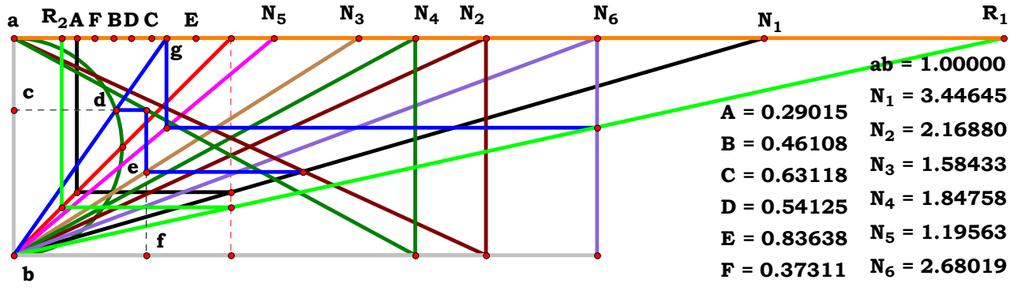
$$\frac{(2 \cdot C \cdot (A + B))}{(D \cdot (C \cdot (A + B) + \sqrt{((A \cdot C + B \cdot C) - 2 \cdot A) \cdot (A \cdot C + B \cdot C + 2 \cdot A)}))} = 2.97175$$

$R_2 = 0.33650$

$$\frac{(D \cdot (C \cdot (A + B) + \sqrt{((A \cdot C + B \cdot C) - 2 \cdot A) \cdot (A \cdot C + B \cdot C + 2 \cdot A)}))}{(2 \cdot C \cdot (A + B))} = 0.33650$$

$$R_2 - \frac{(D \cdot (C \cdot (A + B) + \sqrt{((A \cdot C + B \cdot C) - 2 \cdot A) \cdot (A \cdot C + B \cdot C + 2 \cdot A)}))}{(2 \cdot C \cdot (A + B))} = 0.00000$$

2SMT6R8



Given.

Unit. $ab := 1$

$N_1 := 3.44645 \quad N_2 := 2.16880 \quad N_3 := 1.58433$

$N_4 := 1.84758 \quad N_5 := 1.19563 \quad N_6 := 2.68019$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2} \quad C := \frac{1}{N_3}$

$D := \frac{1}{N_4} \quad E := \frac{1}{N_5} \quad F := \frac{1}{N_6}$

Descriptions.

$ef := \frac{N_2}{N_1 + N_2} \quad bf := N_3 \cdot ef \quad ac := \frac{bf}{N_4}$

$cd := \sqrt{ac \cdot (1 - ac)} \quad ag := \frac{cd}{1 - ac} \quad gh := 1 - \frac{ag}{N_5}$

$R_1 := \frac{N_6}{1 - gh} \quad R_2 := \frac{1}{R_1} \quad R_1 = 4.55369$

Definitions.

$$R_1 - \frac{N_5 \cdot N_6 \cdot \left(N_1 \cdot N_4 - N_2 \cdot N_3 + N_2 \cdot N_4\right)}{\sqrt{N_2 \cdot N_3 \cdot \left(N_1 \cdot N_4 - N_2 \cdot N_3 + N_2 \cdot N_4\right)}} = 0$$

$N_1 - \frac{1}{A} = 0 \quad N_2 - \frac{1}{B} = 0 \quad N_3 - \frac{1}{C} = 0$

$N_4 - \frac{1}{D} = 0 \quad N_5 - \frac{1}{E} = 0 \quad N_6 - \frac{1}{F} = 0$

$$R_1 - \frac{\sqrt{A \cdot D} \cdot \sqrt{A \cdot (C - D) + B \cdot C}}{A \cdot D \cdot E \cdot F} = 0 \quad R_2 - \frac{A \cdot D \cdot E \cdot F}{\sqrt{A \cdot D} \cdot \sqrt{A \cdot (C - D) + B \cdot C}} = 0$$

$A = 0.29015$
$B = 0.46108$
$C = 0.63118$
$D = 0.54125$
$E = 0.83638$
$F = 0.37311$

$ab = 1.00000$
$N_1 = 3.44645$
$N_2 = 2.16880$
$N_3 = 1.58433$
$N_4 = 1.84758$
$N_5 = 1.19563$
$N_6 = 2.68019$

$R_1 = 4.55368$

$$\frac{N_5 \cdot N_6 \cdot ((N_1 \cdot N_4 - N_2 \cdot N_3) + N_2 \cdot N_4)}{\sqrt{N_2 \cdot N_3 \cdot ((N_1 \cdot N_4 - N_2 \cdot N_3) + N_2 \cdot N_4)}} = 4.55368$$

$$\frac{\sqrt{A \cdot D \cdot (A \cdot (C - D) + B \cdot C)}}{(A \cdot D \cdot E \cdot F)} = 4.55368$$

$$R_1 - \frac{N_5 \cdot N_6 \cdot ((N_1 \cdot N_4 - N_2 \cdot N_3) + N_2 \cdot N_4)}{\sqrt{N_2 \cdot N_3 \cdot ((N_1 \cdot N_4 - N_2 \cdot N_3) + N_2 \cdot N_4)}} = 0.00000$$

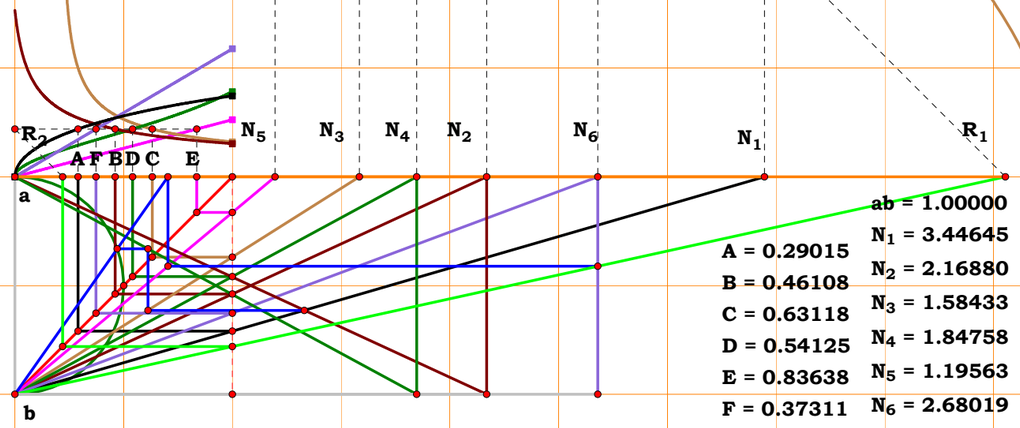
$$R_1 - \frac{\sqrt{A \cdot D \cdot (A \cdot (C - D) + B \cdot C)}}{(A \cdot D \cdot E \cdot F)} = 0.00000$$

$$\frac{\sqrt{A \cdot D \cdot (A \cdot (C - D) + B \cdot C)}}{(A \cdot D \cdot E \cdot F)} - \frac{N_5 \cdot N_6 \cdot ((N_1 \cdot N_4 - N_2 \cdot N_3) + N_2 \cdot N_4)}{\sqrt{N_2 \cdot N_3 \cdot ((N_1 \cdot N_4 - N_2 \cdot N_3) + N_2 \cdot N_4)}} = 0.00000$$

$R_2 = 0.21960$

$$\frac{(A \cdot D \cdot E \cdot F)}{\sqrt{A \cdot D \cdot (A \cdot (C - D) + B \cdot C)}} = 0.21960$$

$$R_2 - \frac{(A \cdot D \cdot E \cdot F)}{\sqrt{A \cdot D \cdot (A \cdot (C - D) + B \cdot C)}} = 0.00000$$



$ab = 1.00000$

$A = 0.29015$
$B = 0.46108$
$C = 0.63118$
$D = 0.54125$
$E = 0.83638$
$F = 0.37311$

$N_1 = 3.44645$
$N_2 = 2.16880$
$N_3 = 1.58433$
$N_4 = 1.84758$
$N_5 = 1.19563$
$N_6 = 2.68019$

$$R_1 = 4.55368$$

$$\frac{N_5 \cdot N_6 \cdot ((N_1 \cdot N_4 - N_2 \cdot N_3) + N_2 \cdot N_4)}{\sqrt{N_2 \cdot N_3 \cdot ((N_1 \cdot N_4 - N_2 \cdot N_3) + N_2 \cdot N_4)}} = 4.55368$$

$$\frac{\sqrt{A \cdot D \cdot (A \cdot (C-D) + B \cdot C)}}{(A \cdot D \cdot E \cdot F)} = 4.55368$$

$$R_1 - \frac{N_5 \cdot N_6 \cdot ((N_1 \cdot N_4 - N_2 \cdot N_3) + N_2 \cdot N_4)}{\sqrt{N_2 \cdot N_3 \cdot ((N_1 \cdot N_4 - N_2 \cdot N_3) + N_2 \cdot N_4)}} = 0.00000$$

$$R_1 - \frac{\sqrt{A \cdot D \cdot (A \cdot (C-D) + B \cdot C)}}{(A \cdot D \cdot E \cdot F)} = 0.00000$$

$$\frac{\sqrt{A \cdot D \cdot (A \cdot (C-D) + B \cdot C)}}{(A \cdot D \cdot E \cdot F)} - \frac{N_5 \cdot N_6 \cdot ((N_1 \cdot N_4 - N_2 \cdot N_3) + N_2 \cdot N_4)}{\sqrt{N_2 \cdot N_3 \cdot ((N_1 \cdot N_4 - N_2 \cdot N_3) + N_2 \cdot N_4)}} = 0.00000$$

$$R_2 = 0.21960$$

$$\frac{(A \cdot D \cdot E \cdot F)}{\sqrt{A \cdot D \cdot (A \cdot (C-D) + B \cdot C)}} = 0.21960$$

$$R_2 - \frac{(A \cdot D \cdot E \cdot F)}{\sqrt{A \cdot D \cdot (A \cdot (C-D) + B \cdot C)}} = 0.00000$$

2SMT6R9

Given.

Unit. $ab := 1$

$N_1 := 2.39374 \quad N_2 := 1.47881$

$N_3 := 3.91296 \quad N_4 := 2.04217$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2} \quad C := \frac{1}{N_3} \quad D := \frac{1}{N_4}$

Descriptions.

$bN_1 := \sqrt{1 + N_1^{\,2}} \quad bg := \frac{1}{bN_1} \quad bh := \frac{N_1 \cdot bg}{bN_1}$

$fh := \frac{bh}{N_2} \quad ej := N_3 \cdot fh \quad bk := \frac{ej}{1 - fh}$

$bc := \frac{bk}{bk + N_4} \quad cd := \sqrt{bc \cdot (1 - bc)} \quad R_1 := \frac{cd}{bc}$

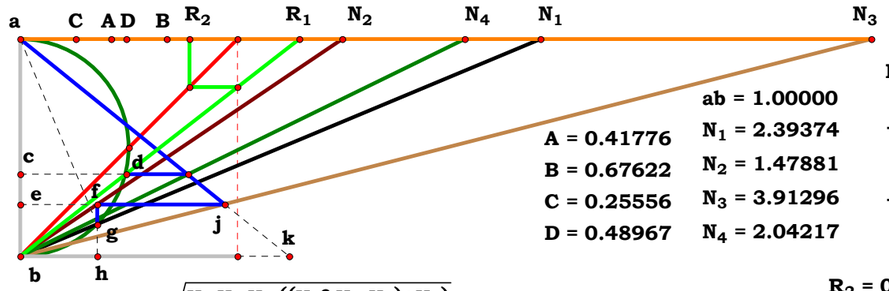
$R_2 := \frac{1}{R_1} \quad R_1 = 1.283738$

Definitions.

$$R_1 - \frac{\sqrt{N_1 \cdot N_3 \cdot N_4 \cdot \left(N_1^{\,2} \cdot N_2 - N_1 + N_2\right)}}{N_1 \cdot N_3} = 0$$

$N_1 - \frac{1}{A} = 0 \quad N_2 - \frac{1}{B} = 0 \quad N_3 - \frac{1}{C} = 0 \quad N_4 - \frac{1}{D} = 0$

$$R_1 - \frac{C \cdot \sqrt{A^2 - B \cdot A + 1}}{\sqrt{A \cdot B \cdot C \cdot D}} = 0 \quad R_2 - \frac{\sqrt{A \cdot B \cdot C \cdot D}}{C \cdot \sqrt{A^2 - B \cdot A + 1}} = 0$$



A = 0.41776
B = 0.67622
C = 0.25556
D = 0.48967

ab = 1.00000
N1 = 2.39374
N2 = 1.47881
N3 = 3.91296
N4 = 2.04217

$R_1 = 1.28374$

$$\frac{\sqrt{N_1 \cdot N_3 \cdot N_4 \cdot \left(\left(N_1^{\,2} \cdot N_2 - N_1\right) + N_2\right)}}{N_1 \cdot N_3} = 1.28374$$

$$\frac{\left(C \cdot \sqrt{(A^2 - B \cdot A) + 1}\right)}{\sqrt{A \cdot B \cdot C \cdot D}} = 1.28374$$

$$R_1 - \frac{\sqrt{N_1 \cdot N_3 \cdot N_4 \cdot \left(\left(N_1^{\,2} \cdot N_2 - N_1\right) + N_2\right)}}{N_1 \cdot N_3} = 0.00000$$

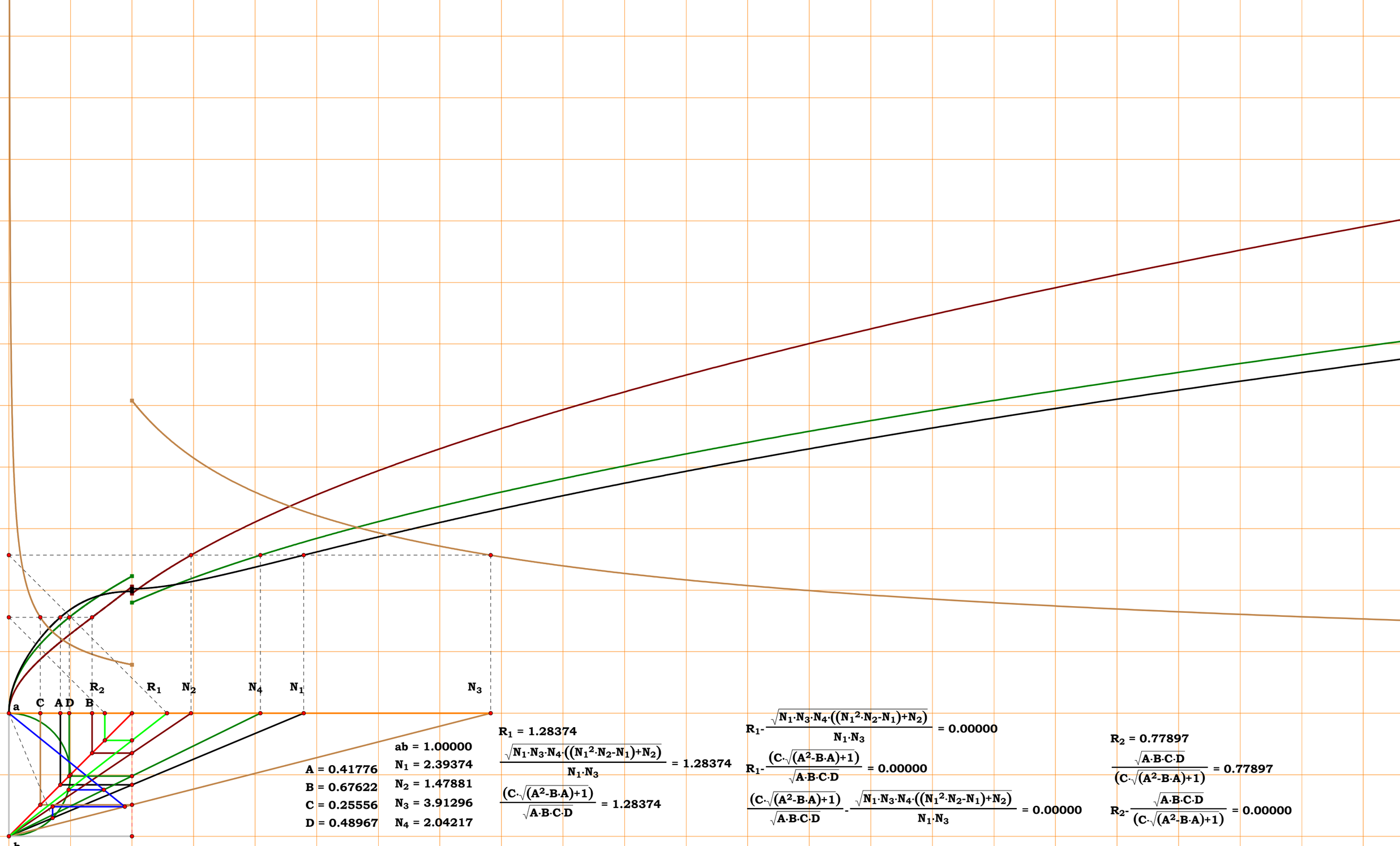
$$R_1 - \frac{\left(C \cdot \sqrt{(A^2 - B \cdot A) + 1}\right)}{\sqrt{A \cdot B \cdot C \cdot D}} = 0.00000$$

$$\frac{\left(C \cdot \sqrt{(A^2 - B \cdot A) + 1}\right)}{\sqrt{A \cdot B \cdot C \cdot D}} - \frac{\sqrt{N_1 \cdot N_3 \cdot N_4 \cdot \left(\left(N_1^{\,2} \cdot N_2 - N_1\right) + N_2\right)}}{N_1 \cdot N_3} = 0.00000$$

$R_2 = 0.77897$

$$\frac{\sqrt{A \cdot B \cdot C \cdot D}}{\left(C \cdot \sqrt{(A^2 - B \cdot A) + 1}\right)} = 0.77897$$

$$R_2 - \frac{\sqrt{A \cdot B \cdot C \cdot D}}{\left(C \cdot \sqrt{(A^2 - B \cdot A) + 1}\right)} = 0.00000$$



$A = 0.41776$
$B = 0.67622$
$C = 0.25556$
$D = 0.48967$

$ab = 1.00000$
$N_1 = 2.39374$
$N_2 = 1.47881$
$N_3 = 3.91296$
$N_4 = 2.04217$

$R_1 = 1.28374$

$$\frac{\sqrt{N_1 \cdot N_3 \cdot N_4 \cdot ((N_1^2 \cdot N_2 - N_1) + N_2)}}{N_1 \cdot N_3} = 1.28374$$

$$\frac{(C \cdot \sqrt{(A^2 - B \cdot A) + 1})}{\sqrt{A \cdot B \cdot C \cdot D}} = 1.28374$$

$$R_1 - \frac{\sqrt{N_1 \cdot N_3 \cdot N_4 \cdot ((N_1^2 \cdot N_2 - N_1) + N_2)}}{N_1 \cdot N_3} = 0.00000$$

$$R_1 - \frac{(C \cdot \sqrt{(A^2 - B \cdot A) + 1})}{\sqrt{A \cdot B \cdot C \cdot D}} = 0.00000$$

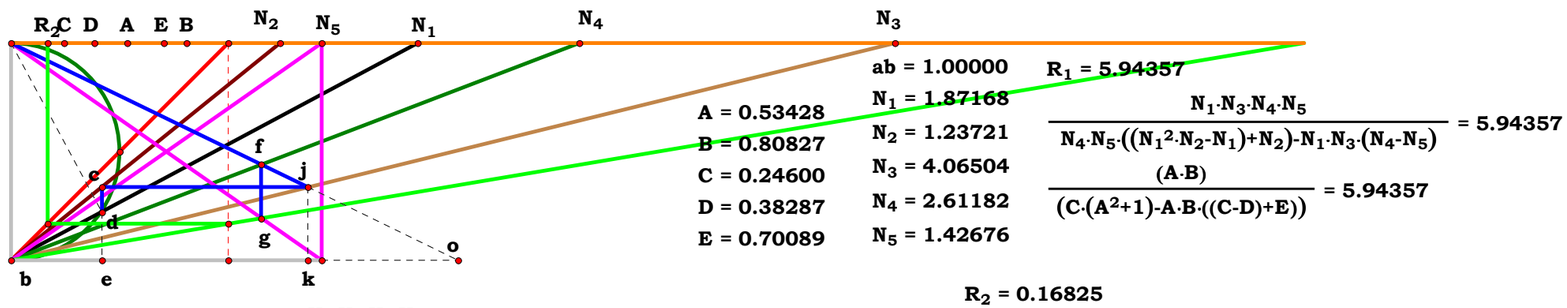
$$\frac{(C \cdot \sqrt{(A^2 - B \cdot A) + 1})}{\sqrt{A \cdot B \cdot C \cdot D}} - \frac{\sqrt{N_1 \cdot N_3 \cdot N_4 \cdot ((N_1^2 \cdot N_2 - N_1) + N_2)}}{N_1 \cdot N_3} = 0.00000$$

$R_2 = 0.77897$

$$\frac{\sqrt{A \cdot B \cdot C \cdot D}}{(C \cdot \sqrt{(A^2 - B \cdot A) + 1})} = 0.77897$$

$$R_2 - \frac{\sqrt{A \cdot B \cdot C \cdot D}}{(C \cdot \sqrt{(A^2 - B \cdot A) + 1})} = 0.00000$$

2SMT6R10



Given.

Unit. $ab := 1$ $N_1 := 1.87168$

$N_2 := 1.23721$ $N_3 := 4.06504$

$N_4 := 2.61182$ $N_5 := 1.42676$

$A := \frac{1}{N_1}$ $B := \frac{1}{N_2}$ $C := \frac{1}{N_3}$ $D := \frac{1}{N_4}$ $E := \frac{1}{N_5}$

Descriptions.

$bN_1 := \sqrt{1 + N_1^2}$ $bd := \frac{1}{bN_1}$ $be := N_1 \cdot \frac{bd}{bN_1}$

$ce := \frac{be}{N_2}$ $bk := ce \cdot N_3$ $bo := \frac{bk}{1 - ce}$

$bh := \frac{N_4 \cdot bo}{bo + N_4}$ $gh := 1 - \frac{bh}{N_5}$ $R_1 := \frac{bh}{gh}$

$R_2 := \frac{1}{R_1}$ $R_1 = 5.943584$

Definitions.

$$R_1 - \frac{N_1 \cdot N_3 \cdot N_4 \cdot N_5}{N_4 \cdot N_5 \cdot \left(N_1^2 \cdot N_2 - N_1 + N_2\right) - N_1 \cdot N_3 \cdot \left(N_4 - N_5\right)} = 0$$

$N_1 - \frac{1}{A} = 0$ $N_2 - \frac{1}{B} = 0$ $N_3 - \frac{1}{C} = 0$ $N_4 - \frac{1}{D} = 0$ $N_5 - \frac{1}{E} = 0$

$$R_1 - \frac{A \cdot B}{C \cdot \left(A^2 + 1\right) - A \cdot B \cdot (C - D + E)} = 0 \qquad R_2 - \frac{C \cdot \left(A^2 + 1\right) - A \cdot B \cdot (C - D + E)}{A \cdot B} = 0$$

$A = 0.53428$
$B = 0.80827$
$C = 0.24600$
$D = 0.38287$
$E = 0.70089$

$ab = 1.00000$
$N_1 = 1.87168$
$N_2 = 1.23721$
$N_3 = 4.06504$
$N_4 = 2.61182$
$N_5 = 1.42676$

$R_1 = 5.94357$

$$\frac{N_1 \cdot N_3 \cdot N_4 \cdot N_5}{N_4 \cdot N_5 \cdot ((N_1^2 \cdot N_2 - N_1) + N_2) - N_1 \cdot N_3 \cdot (N_4 - N_5)} = 5.94357$$

$$\frac{(A \cdot B)}{(C \cdot (A^2+1) - A \cdot B \cdot ((C-D)+E))} = 5.94357$$

$$R_1 - \frac{N_1 \cdot N_3 \cdot N_4 \cdot N_5}{N_4 \cdot N_5 \cdot ((N_1^2 \cdot N_2 - N_1) + N_2) - N_1 \cdot N_3 \cdot (N_4 - N_5)} = 0.00000$$

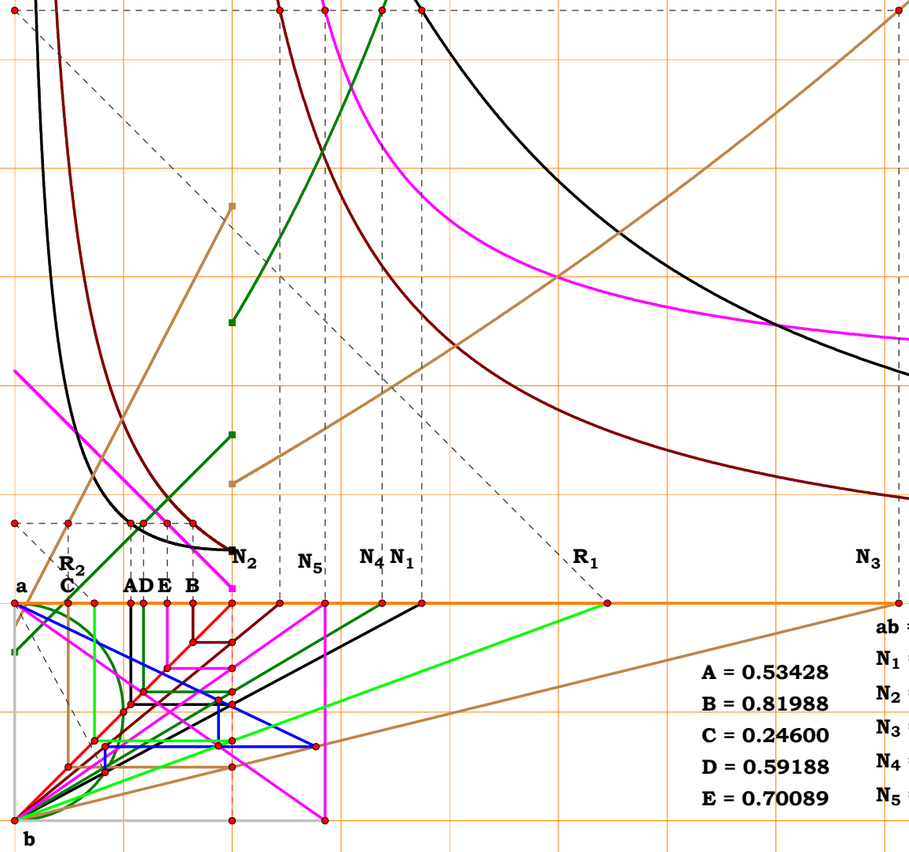
$$R_1 - \frac{(A \cdot B)}{(C \cdot (A^2+1) - A \cdot B \cdot ((C-D)+E))} = 0.00000$$

$$\frac{(A \cdot B)}{(C \cdot (A^2+1) - A \cdot B \cdot ((C-D)+E))} - \frac{N_1 \cdot N_3 \cdot N_4 \cdot N_5}{N_4 \cdot N_5 \cdot ((N_1^2 \cdot N_2 - N_1) + N_2) - N_1 \cdot N_3 \cdot (N_4 - N_5)} = 0.00000$$

$R_2 = 0.16825$

$$\frac{(C \cdot (A^2+1) - A \cdot B \cdot ((C-D)+E))}{(A \cdot B)} = 0.16825$$

$$R_2 - \frac{(C \cdot (A^2+1) - A \cdot B \cdot ((C-D)+E))}{(A \cdot B)} = 0.00000$$



$R_2 = 0.36688$

$$\frac{(C\cdot(A^2+1)-A\cdot B\cdot((C-D)+E))}{(A\cdot B)} = 0.36688$$

$$R_2-\frac{(C\cdot(A^2+1)-A\cdot B\cdot((C-D)+E))}{(A\cdot B)} = 0.00000$$

$A = 0.53428$
$B = 0.81988$
$C = 0.24600$
$D = 0.59188$
$E = 0.70089$

$ab = 1.00000$
$N_1 = 1.87168$
$N_2 = 1.21969$
$N_3 = 4.06504$
$N_4 = 1.68953$
$N_5 = 1.42676$

$R_1 = 2.72566$

$$\frac{N_1\cdot N_3\cdot N_4\cdot N_5}{N_4\cdot N_5\cdot((N_1{}^2\cdot N_2-N_1)+N_2)-N_1\cdot N_3\cdot(N_4-N_5)} = 2.72566$$

$$\frac{(A\cdot B)}{(C\cdot(A^2+1)-A\cdot B\cdot((C-D)+E))} = 2.72566$$

$$R_1-\frac{N_1\cdot N_3\cdot N_4\cdot N_5}{N_4\cdot N_5\cdot((N_1{}^2\cdot N_2-N_1)+N_2)-N_1\cdot N_3\cdot(N_4-N_5)} = 0.00000$$

$$R_1-\frac{(A\cdot B)}{(C\cdot(A^2+1)-A\cdot B\cdot((C-D)+E))} = 0.00000$$

$$\frac{(A\cdot B)}{(C\cdot(A^2+1)-A\cdot B\cdot((C-D)+E))}-\frac{N_1\cdot N_3\cdot N_4\cdot N_5}{N_4\cdot N_5\cdot((N_1{}^2\cdot N_2-N_1)+N_2)-N_1\cdot N_3\cdot(N_4-N_5)} = 0.00000$$

2SMT6R11

Given.

Unit. $ab := 1 \quad N_1 := 2.50189$

$N_2 := 1.25690 \quad N_3 := 1.68911$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2} \quad C := \frac{1}{N_3}$

Descriptions.

$bN_1 := \sqrt{N_1^2 + 1} \quad bd := \frac{1}{bN_1} \quad be := \frac{N_1 \cdot bd}{bN_1}$

$ce := \frac{be}{N_2} \quad gh := N_3 \cdot ce \quad bg := N_3 - gh$

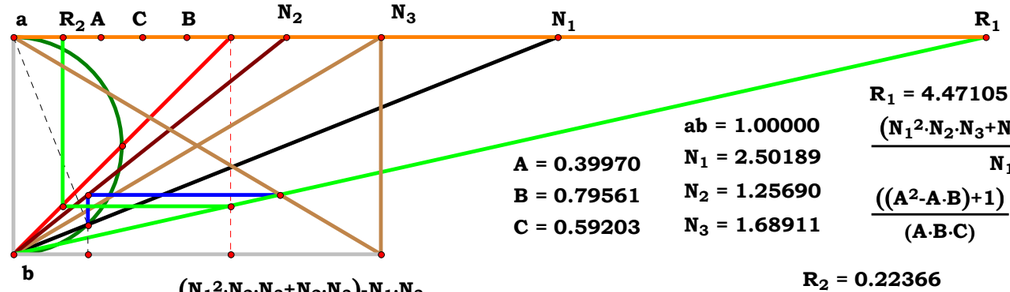
$R_1 := \frac{bg}{ce} \quad R_2 := \frac{1}{R_1} \quad R_1 = 4.471084$

Definitions.

$R_1 - \frac{N_1^2 \cdot N_2 \cdot N_3 + N_2 \cdot N_3 - N_1 \cdot N_3}{N_1} = 0$

$N_1 - \frac{1}{A} = 0 \quad N_2 - \frac{1}{B} = 0 \quad N_3 - \frac{1}{C} = 0$

$R_1 - \frac{\left(A^2 - B \cdot A + 1\right)}{A \cdot B \cdot C} = 0 \quad R_2 - \frac{A \cdot B \cdot C}{\left(A^2 - B \cdot A + 1\right)} = 0$



$A = 0.39970$
$B = 0.79561$
$C = 0.59203$

$ab = 1.00000$
$N_1 = 2.50189$
$N_2 = 1.25690$
$N_3 = 1.68911$

$R_1 = 4.47105$

$\frac{(N_1^2 \cdot N_2 \cdot N_3 + N_2 \cdot N_3) - N_1 \cdot N_3}{N_1} = 4.47105$

$\frac{((A^2 - A \cdot B) + 1)}{(A \cdot B \cdot C)} = 4.47105$

$R_1 - \frac{(N_1^2 \cdot N_2 \cdot N_3 + N_2 \cdot N_3) - N_1 \cdot N_3}{N_1} = 0.00000$

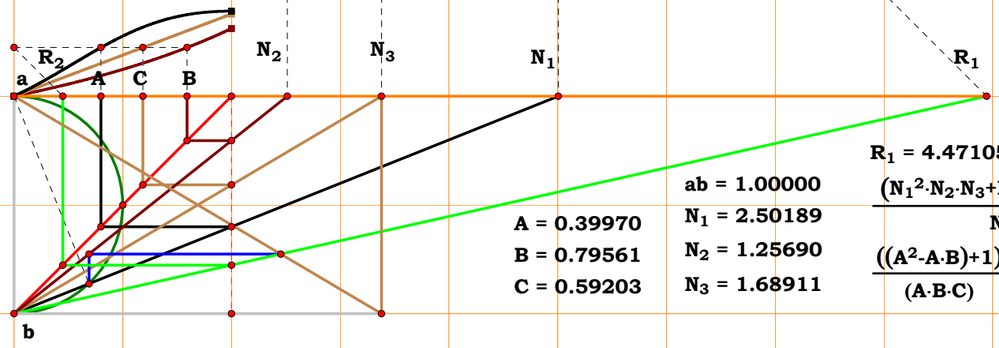
$R_1 - \frac{((A^2 - A \cdot B) + 1)}{(A \cdot B \cdot C)} = 0.00000$

$\frac{((A^2 - A \cdot B) + 1)}{(A \cdot B \cdot C)} - \frac{(N_1^2 \cdot N_2 \cdot N_3 + N_2 \cdot N_3) - N_1 \cdot N_3}{N_1} = 0.00000$

$R_2 = 0.22366$

$\frac{(A \cdot B \cdot C)}{((A^2 - A \cdot B) + 1)} = 0.22366$

$R_2 - \frac{(A \cdot B \cdot C)}{((A^2 - A \cdot B) + 1)} = 0.00000$



A = 0.39970
B = 0.79561
C = 0.59203

ab = 1.00000
N_1 = 2.50189
N_2 = 1.25690
N_3 = 1.68911

$R_1 = 4.47105$

$$\frac{(N_1^2 \cdot N_2 \cdot N_3 + N_2 \cdot N_3) - N_1 \cdot N_3}{N_1} = 4.47105$$

$$\frac{((A^2 - A \cdot B) + 1)}{(A \cdot B \cdot C)} = 4.47105$$

$$R_1 - \frac{(N_1^2 \cdot N_2 \cdot N_3 + N_2 \cdot N_3) - N_1 \cdot N_3}{N_1} = 0.00000$$

$$R_1 - \frac{((A^2 - A \cdot B) + 1)}{(A \cdot B \cdot C)} = 0.00000$$

$$\frac{((A^2 - A \cdot B) + 1)}{(A \cdot B \cdot C)} - \frac{(N_1^2 \cdot N_2 \cdot N_3 + N_2 \cdot N_3) - N_1 \cdot N_3}{N_1} = 0.00000$$

$R_2 = 0.22366$

$$\frac{(A \cdot B \cdot C)}{((A^2 - A \cdot B) + 1)} = 0.22366$$

$$R_2 - \frac{(A \cdot B \cdot C)}{((A^2 - A \cdot B) + 1)} = 0.00000$$

2SMT6R12

Given.

Unit. $ab := 1$

$N_1 := 1.84589 \quad N_2 := 1.30949$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2}$

Descriptions.

$bg := \frac{N_1 \cdot N_2}{N_1 + N_2} \quad bN_1 := \sqrt{N_1^2 + 1} \quad bc := \frac{1}{bN_1}$

$cd := \frac{bc}{bN_1} \quad R_1 := \frac{bg}{cd} \quad R_2 := \frac{1}{R_1}$

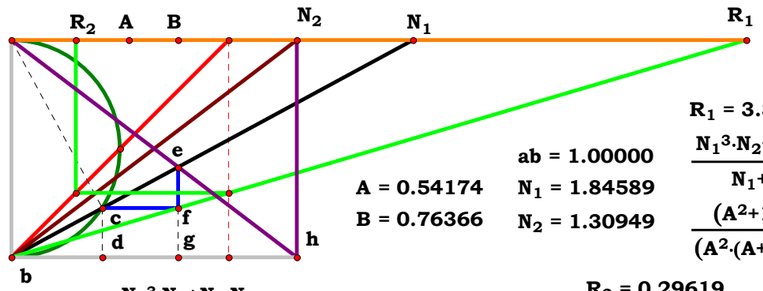
$R_1 = 3.376214$

Definitions.

$R_1 - \frac{N_1^3 \cdot N_2 + N_1 \cdot N_2}{N_1 + N_2} = 0$

$N_1 - \frac{1}{A} = 0 \quad N_2 - \frac{1}{B} = 0$

$R_1 - \frac{(A^2 + 1)}{A^2 \cdot (A + B)} = 0 \quad R_2 - \frac{A^2 \cdot (A + B)}{(A^2 + 1)} = 0$



$A = 0.54174$
$B = 0.76366$

$ab = 1.00000$
$N_1 = 1.84589$
$N_2 = 1.30949$

$R_1 = 3.37620$

$\frac{N_1^3 \cdot N_2 + N_1 \cdot N_2}{N_1 + N_2} = 3.37620$

$\frac{(A^2+1)}{(A^2 \cdot (A+B))} = 3.37620$

$R_1 - \frac{N_1^3 \cdot N_2 + N_1 \cdot N_2}{N_1 + N_2} = 0.00000$

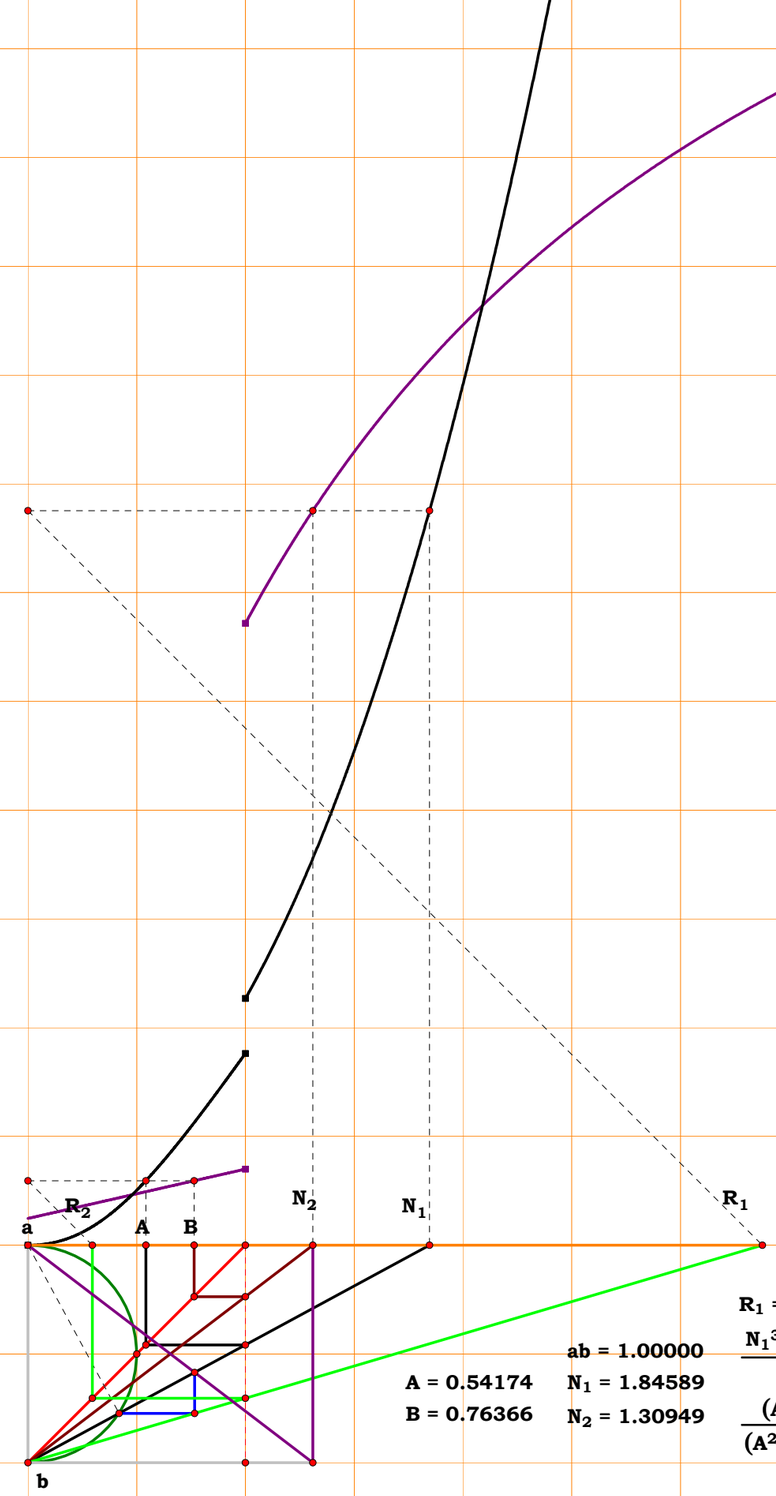
$R_1 - \frac{(A^2+1)}{(A^2 \cdot (A+B))} = 0.00000$

$\frac{(A^2+1)}{(A^2 \cdot (A+B))} - \frac{N_1^3 \cdot N_2 + N_1 \cdot N_2}{N_1 + N_2} = 0.00000$

$R_2 = 0.29619$

$\frac{(A^2 \cdot (A+B))}{(A^2+1)} = 0.29619$

$R_2 - \frac{(A^2 \cdot (A+B))}{(A^2+1)} = 0.00000$



$A = 0.54174$ $B = 0.76366$

$ab = 1.00000$ $N_1 = 1.84589$ $N_2 = 1.30949$

$R_1 = 3.37620$

$$\frac{N_1^3 \cdot N_2 + N_1 \cdot N_2}{N_1 + N_2} = 3.37620$$

$$\frac{(A^2+1)}{(A^2 \cdot (A+B))} = 3.37620$$

$$R_1 - \frac{N_1^3 \cdot N_2 + N_1 \cdot N_2}{N_1 + N_2} = 0.00000$$

$$R_1 - \frac{(A^2+1)}{(A^2 \cdot (A+B))} = 0.00000$$

$$\frac{(A^2+1)}{(A^2 \cdot (A+B))} - \frac{N_1^3 \cdot N_2 + N_1 \cdot N_2}{N_1 + N_2} = 0.00000$$

$R_2 = 0.29619$

$$\frac{(A^2 \cdot (A+B))}{(A^2+1)} = 0.29619$$

$$R_2 - \frac{(A^2 \cdot (A+B))}{(A^2+1)} = 0.00000$$

2SMT6R13

Given.

Unit. $ab := 1$ $N_1 := 1.97294$

$N_2 := 1.51516$ $N_3 := 1.25037$

$A := \frac{1}{N_1}$ $B := \frac{1}{N_2}$ $C := \frac{1}{N_3}$

Descriptions.

$bN_1 := \sqrt{N_1^2 + 1}$ $bd := \frac{1}{bN_1}$ $be := \frac{N_1 \cdot bd}{bN_1}$ $de := \frac{be}{N_1}$

$ce := \frac{be}{N_2}$ $hj := N_3 \cdot ce$ $bh := N_3 - hj$

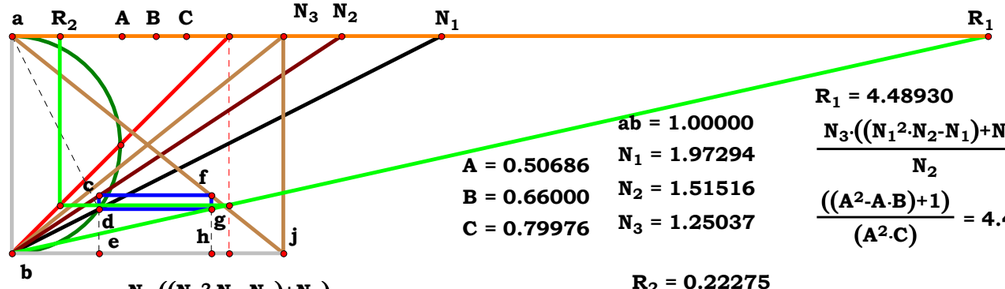
$R_1 := \frac{bh}{de}$ $R_2 := \frac{1}{R_1}$ $R_1 = 4.489277$

Definitions.

$R_1 - \frac{N_3 \cdot \left(N_1^2 \cdot N_2 - N_1 + N_2\right)}{N_2} = 0$

$N_1 - \frac{1}{A} = 0$ $N_2 - \frac{1}{B} = 0$ $N_3 - \frac{1}{C} = 0$

$R_1 - \frac{\left(A^2 - B \cdot A + 1\right)}{A^2 \cdot C} = 0$ $R_2 - \frac{A^2 \cdot C}{\left(A^2 - B \cdot A + 1\right)} = 0$



$A = 0.50686$

$B = 0.66000$

$C = 0.79976$

$ab = 1.00000$

$N_1 = 1.97294$

$N_2 = 1.51516$

$N_3 = 1.25037$

$R_1 = 4.48930$

$\frac{N_3 \cdot \left((N_1^2 \cdot N_2 - N_1) + N_2\right)}{N_2} = 4.48930$

$\frac{((A^2 - A \cdot B) + 1)}{(A^2 \cdot C)} = 4.48930$

$R_1 - \frac{N_3 \cdot \left((N_1^2 \cdot N_2 - N_1) + N_2\right)}{N_2} = 0.00000$

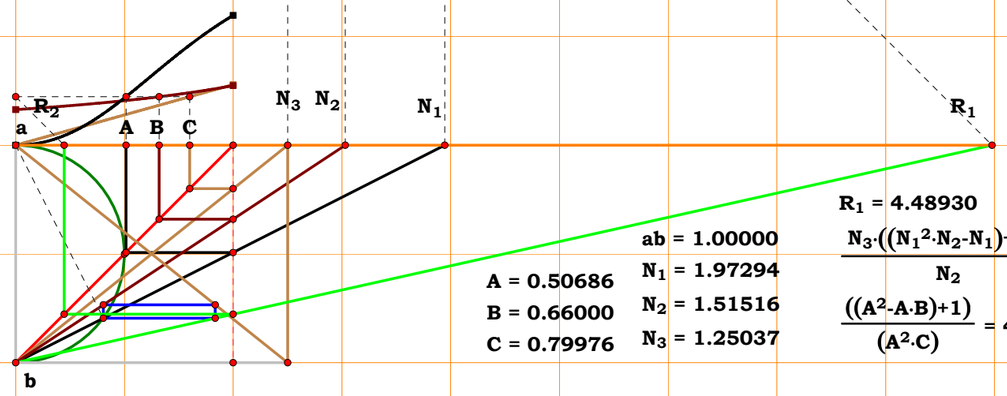
$R_1 - \frac{((A^2 - A \cdot B) + 1)}{(A^2 \cdot C)} = 0.00000$

$\frac{((A^2 - A \cdot B) + 1)}{(A^2 \cdot C)} - \frac{N_3 \cdot \left((N_1^2 \cdot N_2 - N_1) + N_2\right)}{N_2} = 0.00000$

$R_2 = 0.22275$

$\frac{(A^2 \cdot C)}{((A^2 - A \cdot B) + 1)} = 0.22275$

$R_2 - \frac{(A^2 \cdot C)}{((A^2 - A \cdot B) + 1)} = 0.00000$



$A = 0.50686$
$B = 0.66000$
$C = 0.79976$

$ab = 1.00000$
$N_1 = 1.97294$
$N_2 = 1.51516$
$N_3 = 1.25037$

$R_1 = 4.48930$

$$\frac{N_3\cdot((N_1^2\cdot N_2-N_1)+N_2)}{N_2} = 4.48930$$

$$\frac{((A^2-A\cdot B)+1)}{(A^2\cdot C)} = 4.48930$$

$$R_1-\frac{N_3\cdot((N_1^2\cdot N_2-N_1)+N_2)}{N_2} = 0.00000$$

$$R_1-\frac{((A^2-A\cdot B)+1)}{(A^2\cdot C)} = 0.00000$$

$$\frac{((A^2-A\cdot B)+1)}{(A^2\cdot C)}-\frac{N_3\cdot((N_1^2\cdot N_2-N_1)+N_2)}{N_2} = 0.00000$$

$R_2 = 0.22275$

$$\frac{(A^2\cdot C)}{((A^2-A\cdot B)+1)} = 0.22275$$

$$R_2-\frac{(A^2\cdot C)}{((A^2-A\cdot B)+1)} = 0.00000$$

2SMT6R14

Given.

Unit. $a := 1$ $N_1 := 2.48997$

$N_2 := 1.75222$ $N_3 := 1.19397$

$A := \frac{1}{N_1}$ $B := \frac{1}{N_2}$ $C := \frac{1}{N_3}$

Descriptions.

$bN_1 := \sqrt{N_1^{\,2} + 1}$ $bc := \frac{1}{bN_1}$ $CD := \frac{bc}{bN_1}$

$fg := N_3 \cdot CD$ $bf := N_3 - fg$ $hf := \frac{bf}{N_2}$

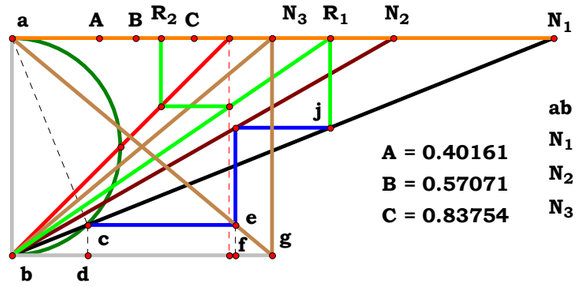
$R_1 := N_1 \cdot hf$ $R_2 := \frac{1}{R_1}$ $R_1 = 1.461025$

Definitions.

$$R_1 - \frac{N_1^{\,3} \cdot N_3}{N_1^{\,2} \cdot N_2 + N_2} = 0$$

$N_1 - \frac{1}{A} = 0$ $N_2 - \frac{1}{B} = 0$ $N_3 - \frac{1}{C} = 0$

$$R_1 - \frac{B}{A \cdot C \cdot \left(A^2 + 1\right)} = 0 \qquad R_2 - \frac{A \cdot C \cdot \left(A^2 + 1\right)}{B} = 0$$



A = 0.40161
B = 0.57071
C = 0.83754

ab = 1.00000
N_1 = 2.48997
N_2 = 1.75222
N_3 = 1.19397

$R_1 = 1.46103$

$$\frac{N_1^{\,3} \cdot N_3}{N_1^{\,2} \cdot N_2 + N_2} = 1.46103$$

$$\frac{B}{(A \cdot C \cdot (A^2+1))} = 1.46103$$

$$R_1 - \frac{N_1^{\,3} \cdot N_3}{N_1^{\,2} \cdot N_2 + N_2} = 0.00000$$

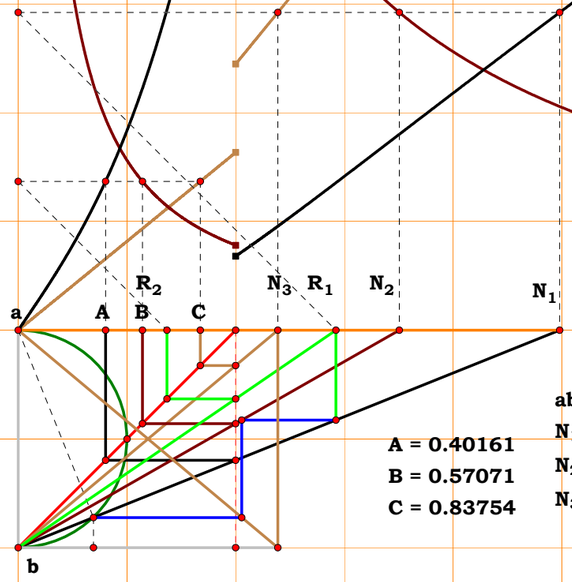
$$R_1 - \frac{B}{(A \cdot C \cdot (A^2+1))} = 0.00000$$

$$\frac{B}{(A \cdot C \cdot (A^2+1))} - \frac{N_1^{\,3} \cdot N_3}{N_1^{\,2} \cdot N_2 + N_2} = 0.00000$$

$R_2 = 0.68445$

$$\frac{(A \cdot C \cdot (A^2+1))}{B} = 0.68445$$

$$R_2 - \frac{(A \cdot C \cdot (A^2+1))}{B} = 0.00000$$



$A = 0.40161$

$B = 0.57071$

$C = 0.83754$

$ab = 1.00000$

$N_1 = 2.48997$

$N_2 = 1.75222$

$N_3 = 1.19397$

$R_1 = 1.46103$

$\frac{N_1^3 \cdot N_3}{N_1^2 \cdot N_2 + N_2} = 1.46103$

$\frac{B}{(A \cdot C \cdot (A^2+1))} = 1.46103$

$R_1 - \frac{N_1^3 \cdot N_3}{N_1^2 \cdot N_2 + N_2} = 0.00000$

$R_1 - \frac{B}{(A \cdot C \cdot (A^2+1))} = 0.00000$

$\frac{B}{(A \cdot C \cdot (A^2+1))} - \frac{N_1^3 \cdot N_3}{N_1^2 \cdot N_2 + N_2} = 0.00000$

$R_2 = 0.68445$

$\frac{(A \cdot C \cdot (A^2+1))}{B} = 0.68445$

$R_2 - \frac{(A \cdot C \cdot (A^2+1))}{B} = 0.00000$

2SMT6R15

Given.

Unit. $ab := 1$

$N_1 := 2.50574 \quad N_2 := 2.04868$

$N_3 := 1.23412 \quad N_4 := 1.60703$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2} \quad C := \frac{1}{N_3} \quad D := \frac{1}{N_4}$

Descriptions.

$bN_1 := \sqrt{1 + N_1^2} \quad bc := \frac{1}{bN_1} \quad ef := 1 \cdot \frac{bc}{bN_1}$

$bf := N_3 \cdot (1 - ef) \quad df := \frac{bf}{N_2}$

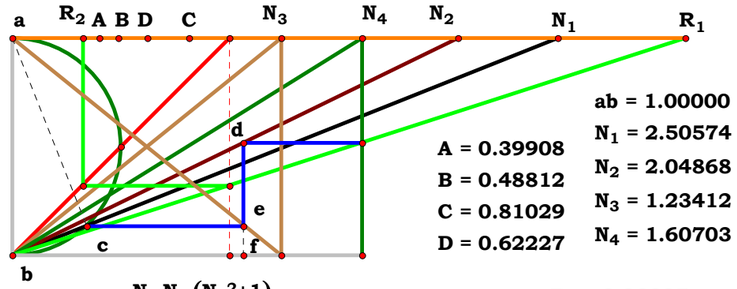
$R_1 := \frac{N_4}{df} \quad R_2 := \frac{1}{R_1} \quad R_1 = 3.092605$

Definitions.

$R_1 - \frac{N_2 \cdot N_4 \cdot \left(N_1^2 + 1\right)}{N_1^2 \cdot N_3} = 0$

$N_1 - \frac{1}{A} = 0 \quad N_2 - \frac{1}{B} = 0 \quad N_3 - \frac{1}{C} = 0 \quad N_4 - \frac{1}{D} = 0$

$R_1 - \frac{C \cdot \left(A^2 + 1\right)}{B \cdot D} = 0 \quad R_2 - \frac{B \cdot D}{C \cdot \left(A^2 + 1\right)} = 0$



ab = 1.00000
N1 = 2.50574
N2 = 2.04868
N3 = 1.23412
N4 = 1.60703

A = 0.39908
B = 0.48812
C = 0.81029
D = 0.62227

$R_1 = 3.09260$

$\frac{N_2 \cdot N_4 \cdot (N_1^2+1)}{N_1^2 \cdot N_3} = 3.09260$

$\frac{(C \cdot (A^2+1))}{(B \cdot D)} = 3.09260$

$R_1 - \frac{N_2 \cdot N_4 \cdot (N_1^2+1)}{N_1^2 \cdot N_3} = 0.00000$

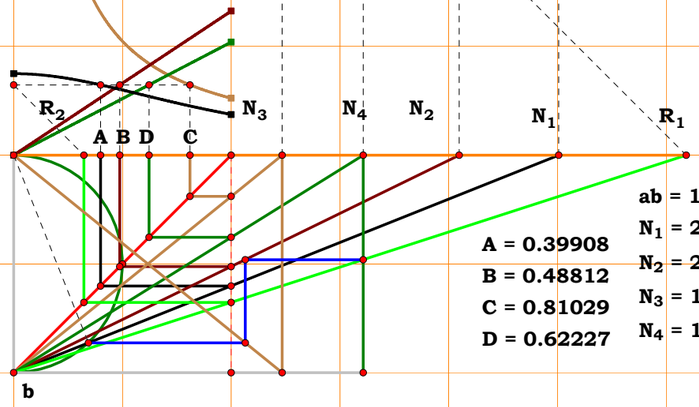
$R_1 - \frac{(C \cdot (A^2+1))}{(B \cdot D)} = 0.00000$

$\frac{(C \cdot (A^2+1))}{(B \cdot D)} - \frac{N_2 \cdot N_4 \cdot (N_1^2+1)}{N_1^2 \cdot N_3} = 0.00000$

$R_2 = 0.32335$

$\frac{(B \cdot D)}{(C \cdot (A^2+1))} = 0.32335$

$R_2 - \frac{(B \cdot D)}{(C \cdot (A^2+1))} = 0.00000$



$ab = 1.00000$
$N_1 = 2.50574$
$N_2 = 2.04868$
$N_3 = 1.23412$
$N_4 = 1.60703$

$A = 0.39908$
$B = 0.48812$
$C = 0.81029$
$D = 0.62227$

$R_1 = 3.09260$

$$\frac{N_2 \cdot N_4 \cdot (N_1^2+1)}{N_1^2 \cdot N_3} = 3.09260$$

$$\frac{(C \cdot (A^2+1))}{(B \cdot D)} = 3.09260$$

$$R_1 - \frac{N_2 \cdot N_4 \cdot (N_1^2+1)}{N_1^2 \cdot N_3} = 0.00000$$

$$R_1 - \frac{(C \cdot (A^2+1))}{(B \cdot D)} = 0.00000$$

$$\frac{(C \cdot (A^2+1))}{(B \cdot D)} - \frac{N_2 \cdot N_4 \cdot (N_1^2+1)}{N_1^2 \cdot N_3} = 0.00000$$

$R_2 = 0.32335$

$$\frac{(B \cdot D)}{(C \cdot (A^2+1))} = 0.32335$$

$$R_2 - \frac{(B \cdot D)}{(C \cdot (A^2+1))} = 0.00000$$

2SMT7R0

Given.

Unit. $ab := 1$

$N_1 := 2.89432 \quad N_2 := 2.01580$

$N_3 := 4.96307 \quad N_4 := 1.42268$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2} \quad C := \frac{1}{N_3} \quad D := \frac{1}{N_4}$

Descriptions.

$hj := \frac{N_2}{N_1} \quad gm := N_4 \cdot hj$

$bg := N_4 - gm \quad ak := \frac{bg}{hj}$

$bk := \sqrt{ak^2 + 1} \quad be := \frac{1}{bk}$

$cd := \frac{be}{bk} \quad R_1 := N_3 \cdot cd$

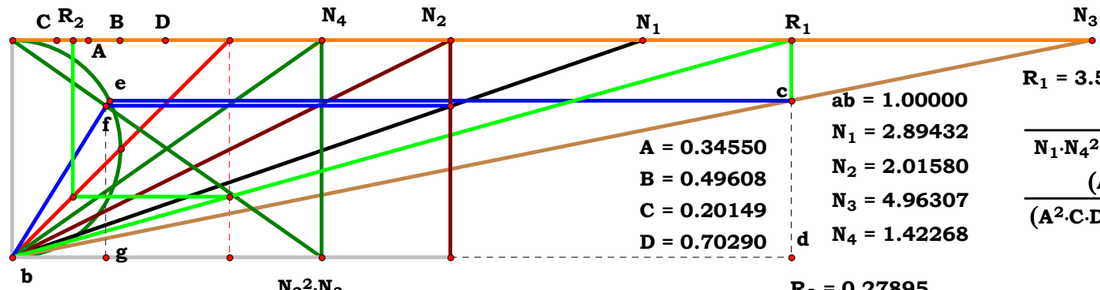
$R_2 := \frac{1}{R_1} \quad R_1 = 3.584907$

Definitions.

$$R_1 - \frac{N_2^2 \cdot N_3}{N_1 \cdot N_4^2 \cdot (N_1 - 2 \cdot N_2) + N_2^2 \cdot (N_4^2 + 1)} = 0$$

$N_1 - \frac{1}{A} = 0 \quad N_2 - \frac{1}{B} = 0 \quad N_3 - \frac{1}{C} = 0 \quad N_4 - \frac{1}{D} = 0$

$$R_1 - \frac{A^2 \cdot D^2}{A^2 \cdot C \cdot D^2 + C \cdot (A - B)^2} = 0 \quad R_2 - \frac{A^2 \cdot C \cdot D^2 + C \cdot (A - B)^2}{A^2 \cdot D^2} = 0$$



A = 0.34550
B = 0.49608
C = 0.20149
D = 0.70290

ab = 1.00000
N_1 = 2.89432
N_2 = 2.01580
N_3 = 4.96307
N_4 = 1.42268

$R_1 = 3.58492$

$$\frac{N_2^2 \cdot N_3}{N_1 \cdot N_4^2 \cdot (N_1 - 2 \cdot N_2) + N_2^2 \cdot (N_4^2 + 1)} = 3.58492$$

$$\frac{(A^2 \cdot D^2)}{(A^2 \cdot C \cdot D^2 + C \cdot (A - B)^2)} = 3.58492$$

$$R_1 - \frac{N_2^2 \cdot N_3}{N_1 \cdot N_4^2 \cdot (N_1 - 2 \cdot N_2) + N_2^2 \cdot (N_4^2 + 1)} = 0.00000$$

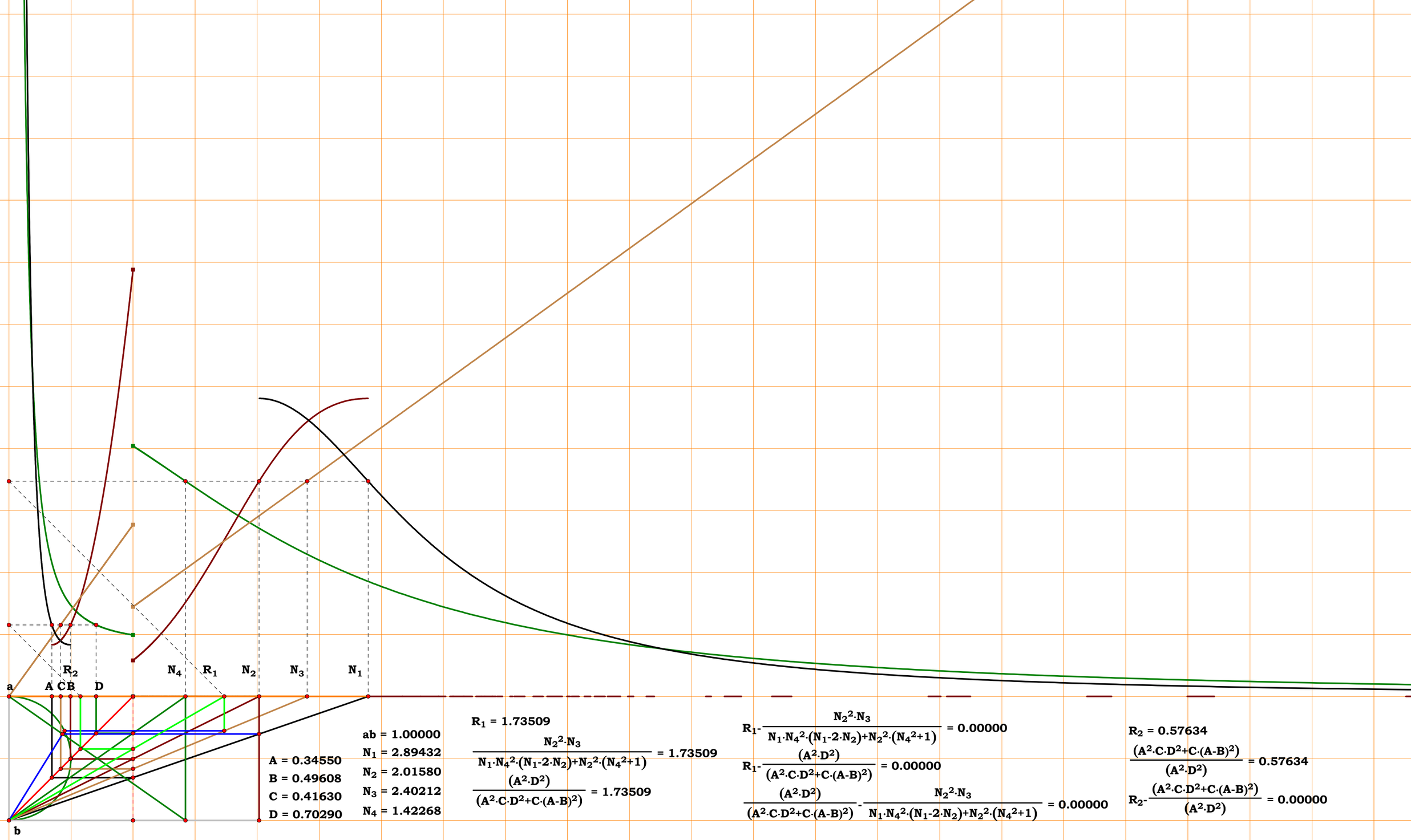
$$R_1 - \frac{(A^2 \cdot D^2)}{(A^2 \cdot C \cdot D^2 + C \cdot (A - B)^2)} = 0.00000$$

$$\frac{(A^2 \cdot D^2)}{(A^2 \cdot C \cdot D^2 + C \cdot (A - B)^2)} - \frac{N_2^2 \cdot N_3}{N_1 \cdot N_4^2 \cdot (N_1 - 2 \cdot N_2) + N_2^2 \cdot (N_4^2 + 1)} = 0.00000$$

$R_2 = 0.27895$

$$\frac{(A^2 \cdot C \cdot D^2 + C \cdot (A - B)^2)}{(A^2 \cdot D^2)} = 0.27895$$

$$R_2 - \frac{(A^2 \cdot C \cdot D^2 + C \cdot (A - B)^2)}{(A^2 \cdot D^2)} = 0.00000$$



$A = 0.34550$
$B = 0.49608$
$C = 0.41630$
$D = 0.70290$

$ab = 1.00000$
$N_1 = 2.89432$
$N_2 = 2.01580$
$N_3 = 2.40212$
$N_4 = 1.42268$

$R_1 = 1.73509$

$$\frac{N_2^2 \cdot N_3}{N_1 \cdot N_4^2 \cdot (N_1 - 2 \cdot N_2) + N_2^2 \cdot (N_4^2 + 1)} = 1.73509$$

$$\frac{(A^2 \cdot D^2)}{(A^2 \cdot C \cdot D^2 + C \cdot (A-B)^2)} = 1.73509$$

$$R_1 - \frac{N_2^2 \cdot N_3}{N_1 \cdot N_4^2 \cdot (N_1 - 2 \cdot N_2) + N_2^2 \cdot (N_4^2 + 1)} = 0.00000$$

$$R_1 - \frac{(A^2 \cdot D^2)}{(A^2 \cdot C \cdot D^2 + C \cdot (A-B)^2)} = 0.00000$$

$$\frac{(A^2 \cdot D^2)}{(A^2 \cdot C \cdot D^2 + C \cdot (A-B)^2)} - \frac{N_2^2 \cdot N_3}{N_1 \cdot N_4^2 \cdot (N_1 - 2 \cdot N_2) + N_2^2 \cdot (N_4^2 + 1)} = 0.00000$$

$R_2 = 0.57634$

$$\frac{(A^2 \cdot C \cdot D^2 + C \cdot (A-B)^2)}{(A^2 \cdot D^2)} = 0.57634$$

$$R_2 - \frac{(A^2 \cdot C \cdot D^2 + C \cdot (A-B)^2)}{(A^2 \cdot D^2)} = 0.00000$$

2SMT7R1

Given.

Unit. $ab := 1$ $N_1 := 3.08673$

$N_2 := 1.65226$ $N_3 := 1.42859$

$N_4 := 4.04461$ $N_5 := 2.29391$

$$A := \frac{1}{N_1} \quad B := \frac{1}{N_2} \quad C := \frac{1}{N_3} \quad D := \frac{1}{N_4} \quad E := \frac{1}{N_5}$$

Descriptions.

$$jN_2 := 1 - \frac{N_2}{N_1} \quad bh := N_3 \cdot jN_2 \quad ak := \frac{bh}{1 - jN_2}$$

$$bk := \sqrt{1 + ak^2} \quad bc := \frac{1}{bk} \quad ef := \frac{bc}{bk}$$

$$bf := N_4 \cdot ef \quad df := 1 - \frac{bf}{N_5} \quad R_1 := \frac{bf}{df}$$

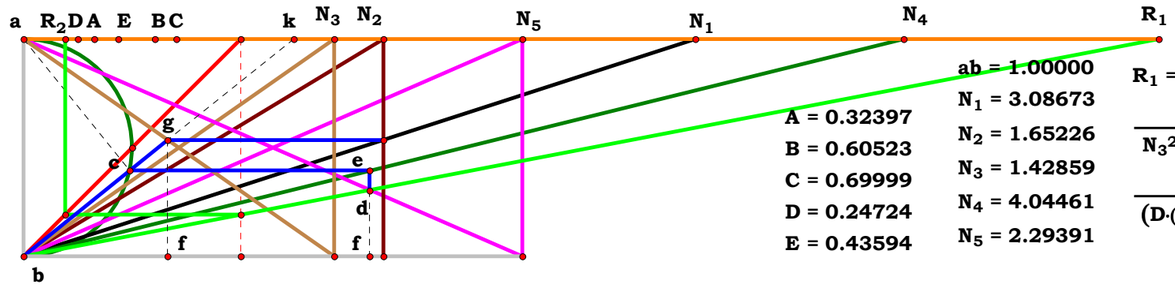
$$R_2 := \frac{1}{R_1} \quad R_1 = 5.218135$$

Definitions.

$$R_1 - \frac{N_2^{\,2} \cdot N_4 \cdot N_5}{N_3^{\,2} \cdot N_5 \cdot (N_1 - N_2)^2 - N_2^{\,2} \cdot (N_4 - N_5)} = 0$$

$$N_1 - \frac{1}{A} = 0 \quad N_2 - \frac{1}{B} = 0 \quad N_3 - \frac{1}{C} = 0 \quad N_4 - \frac{1}{D} = 0 \quad N_5 - \frac{1}{E} = 0$$

$$R_1 - \frac{A^2 \cdot C^2}{D \cdot (A - B)^2 + A^2 \cdot C^2 \cdot (D - E)} = 0 \quad R_2 - \frac{D \cdot (A - B)^2 + A^2 \cdot C^2 \cdot (D - E)}{A^2 \cdot C^2} = 0$$



$A = 0.32397$
$B = 0.60523$
$C = 0.69999$
$D = 0.24724$
$E = 0.43594$

$ab = 1.00000$
$N_1 = 3.08673$
$N_2 = 1.65226$
$N_3 = 1.42859$
$N_4 = 4.04461$
$N_5 = 2.29391$

$R_1 = 5.21807$

$$\frac{N_2^{\,2} \cdot N_4 \cdot N_5}{N_3^{\,2} \cdot N_5 \cdot (N_1 - N_2)^2 - N_2^{\,2} \cdot (N_4 - N_5)} = 5.21807$$

$$\frac{(A^2 \cdot C^2)}{(D \cdot (A - B)^2 + A^2 \cdot C^2 \cdot (D - E))} = 5.21807$$

$$R_1 - \frac{N_2^{\,2} \cdot N_4 \cdot N_5}{N_3^{\,2} \cdot N_5 \cdot (N_1 - N_2)^2 - N_2^{\,2} \cdot (N_4 - N_5)} = 0.00000$$

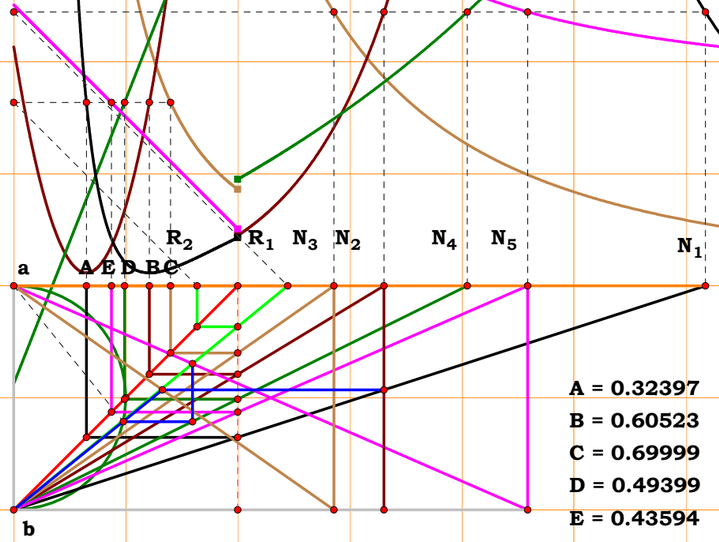
$$R_1 - \frac{(A^2 \cdot C^2)}{(D \cdot (A - B)^2 + A^2 \cdot C^2 \cdot (D - E))} = 0.00000$$

$$\frac{(A^2 \cdot C^2)}{(D \cdot (A - B)^2 + A^2 \cdot C^2 \cdot (D - E))} - \frac{N_2^{\,2} \cdot N_4 \cdot N_5}{N_3^{\,2} \cdot N_5 \cdot (N_1 - N_2)^2 - N_2^{\,2} \cdot (N_4 - N_5)} = 0.00000$$

$R_2 = 0.19164$

$$\frac{(D \cdot (A - B)^2 + A^2 \cdot C^2 \cdot (D - E))}{(A^2 \cdot C^2)} = 0.19164$$

$$R_2 - \frac{(D \cdot (A - B)^2 + A^2 \cdot C^2 \cdot (D - E))}{(A^2 \cdot C^2)} = 0.00000$$



A = 0.32397
B = 0.60523
C = 0.69999
D = 0.49399
E = 0.43594

ab = 1.00000
N_1 = 3.08673
N_2 = 1.65226
N_3 = 1.42859
N_4 = 2.02435
N_5 = 2.29391

$R_1 = 1.22257$

$$\frac{N_2^2 \cdot N_4 \cdot N_5}{N_3^2 \cdot N_5 \cdot (N_1 - N_2)^2 - N_2^2 \cdot (N_4 - N_5)} = 1.22257$$

$$\frac{(A^2 \cdot C^2)}{(D \cdot (A-B)^2 + A^2 \cdot C^2 \cdot (D-E))} = 1.22257$$

$$R_1 - \frac{N_2^2 \cdot N_4 \cdot N_5}{N_3^2 \cdot N_5 \cdot (N_1 - N_2)^2 - N_2^2 \cdot (N_4 - N_5)} = 0.00000$$

$$R_1 - \frac{(A^2 \cdot C^2)}{(D \cdot (A-B)^2 + A^2 \cdot C^2 \cdot (D-E))} = 0.00000$$

$$\frac{(A^2 \cdot C^2)}{(D \cdot (A-B)^2 + A^2 \cdot C^2 \cdot (D-E))} - \frac{N_2^2 \cdot N_4 \cdot N_5}{N_3^2 \cdot N_5 \cdot (N_1 - N_2)^2 - N_2^2 \cdot (N_4 - N_5)} = 0.00000$$

$R_2 = 0.81795$

$$\frac{(D \cdot (A-B)^2 + A^2 \cdot C^2 \cdot (D-E))}{(A^2 \cdot C^2)} = 0.81795$$

$$R_2 - \frac{(D \cdot (A-B)^2 + A^2 \cdot C^2 \cdot (D-E))}{(A^2 \cdot C^2)} = 0.00000$$

2SMT7R2

Given.

Unit. $ab := 1$ $N_1 := 5.15522$

$N_2 := 3.13452$ $N_3 := 1.13721$

$N_4 := 2.13334$ $N_5 := 1.61058$

$A := \frac{1}{N_1}$ $B := \frac{1}{N_2}$ $C := \frac{1}{N_3}$ $D := \frac{1}{N_4}$ $E := \frac{1}{N_5}$

Descriptions.

$jk := \frac{N_2}{N_1}$ $bk := N_3 \cdot (1 - jk)$ $ao := \frac{bk}{jk}$

$bo := \sqrt{1 + ao^2}$ $bh := \frac{1}{bo}$ $ef := \frac{bh}{bo}$

$bf := ef \cdot N_4$ $ac := \frac{bf}{N_5}$ $CG := \sqrt{ac \cdot (1 - ac)}$

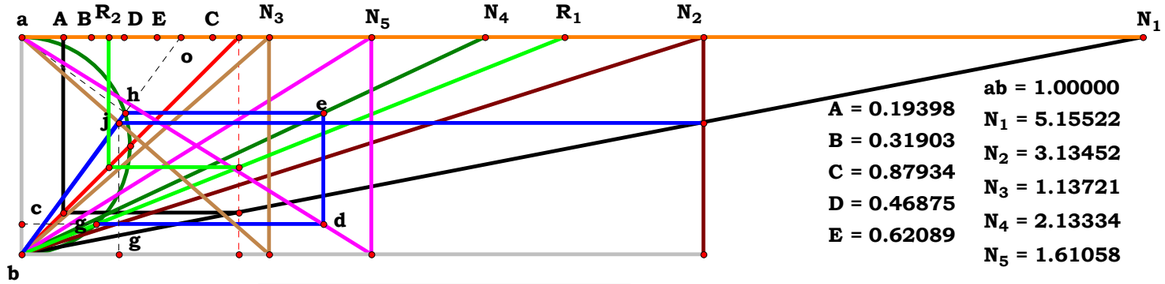
$R_1 := \frac{CG}{1 - ac}$ $R_2 := \frac{1}{R_1}$ $R_1 = 2.494447$

Definitions.

$$R_1 - \frac{N_2 \cdot \sqrt{N_4 \cdot N_5^2 \cdot \left[N_3^2 \cdot N_5 \cdot (N_1 - N_2)^2 - N_2^2 \cdot (N_4 - N_5)\right]}}{N_5 \cdot \left[N_3^2 \cdot N_5 \cdot (N_1 - N_2)^2 - N_2^2 \cdot (N_4 - N_5)\right]} = 0$$

$N_1 - \frac{1}{A} = 0$ $N_2 - \frac{1}{B} = 0$ $N_3 - \frac{1}{C} = 0$ $N_4 - \frac{1}{D} = 0$ $N_5 - \frac{1}{E} = 0$

$$R_1 - \frac{A \cdot C \cdot \sqrt{E} \cdot \sqrt{D \cdot (A - B)^2 + A^2 \cdot C^2 \cdot (D - E)}}{A^2 \cdot \left[C^2 \cdot (D - E) + D\right] - B \cdot D \cdot (2 \cdot A - B)} = 0 \qquad R_2 - \frac{A^2 \cdot \left[C^2 \cdot (D - E) + D\right] - B \cdot D \cdot (2 \cdot A - B)}{A \cdot C \cdot \sqrt{E} \cdot \sqrt{D \cdot (A - B)^2 + A^2 \cdot C^2 \cdot (D - E)}} = 0$$



A = 0.19398
B = 0.31903
C = 0.87934
D = 0.46875
E = 0.62089

ab = 1.00000
N_1 = 5.15522
N_2 = 3.13452
N_3 = 1.13721
N_4 = 2.13334
N_5 = 1.61058

$$R_1 - \frac{N_2 \cdot \sqrt{N_4 \cdot N_5^2 \cdot (N_3^2 \cdot N_5 \cdot (N_1 - N_2)^2 - N_2^2 \cdot (N_4 - N_5))}}{N_5 \cdot (N_3^2 \cdot N_5 \cdot (N_1 - N_2)^2 - N_2^2 \cdot (N_4 - N_5))} = 0.00000$$

$$R_1 - \frac{(A \cdot C \cdot \sqrt{E} \cdot \sqrt{D \cdot (A - B)^2 + A^2 \cdot C^2 \cdot (D - E)})}{(A^2 \cdot (C^2 \cdot (D - E) + D) - B \cdot D \cdot (2 \cdot A - B))} = 0.00000$$

$$\frac{(A \cdot C \cdot \sqrt{E} \cdot \sqrt{D \cdot (A - B)^2 + A^2 \cdot C^2 \cdot (D - E)})}{(A^2 \cdot (C^2 \cdot (D - E) + D) - B \cdot D \cdot (2 \cdot A - B))} - \frac{N_2 \cdot \sqrt{N_4 \cdot N_5^2 \cdot (N_3^2 \cdot N_5 \cdot (N_1 - N_2)^2 - N_2^2 \cdot (N_4 - N_5))}}{N_5 \cdot (N_3^2 \cdot N_5 \cdot (N_1 - N_2)^2 - N_2^2 \cdot (N_4 - N_5))} = 0.00000$$

$R_1 = 2.49446$

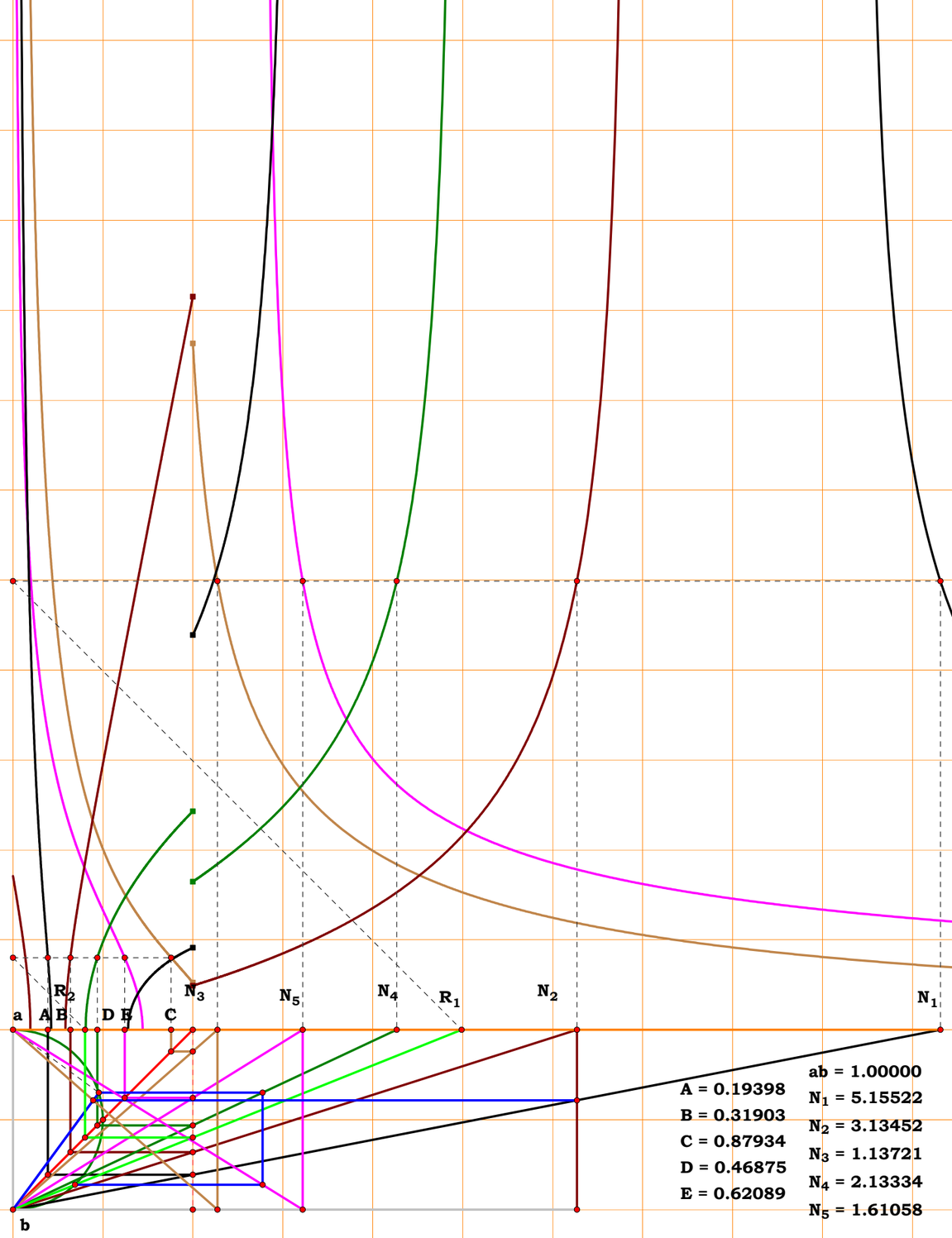
$$\frac{N_2 \cdot \sqrt{N_4 \cdot N_5^2 \cdot (N_3^2 \cdot N_5 \cdot (N_1 - N_2)^2 - N_2^2 \cdot (N_4 - N_5))}}{N_5 \cdot (N_3^2 \cdot N_5 \cdot (N_1 - N_2)^2 - N_2^2 \cdot (N_4 - N_5))} = 2.49446$$

$$\frac{(A \cdot C \cdot \sqrt{E} \cdot \sqrt{D \cdot (A - B)^2 + A^2 \cdot C^2 \cdot (D - E)})}{(A^2 \cdot (C^2 \cdot (D - E) + D) - B \cdot D \cdot (2 \cdot A - B))} = 2.49446$$

$R_2 = 0.40089$

$$\frac{(A^2 \cdot (C^2 \cdot (D - E) + D) - B \cdot D \cdot (2 \cdot A - B))}{(A \cdot C \cdot \sqrt{E} \cdot \sqrt{D \cdot (A - B)^2 + A^2 \cdot C^2 \cdot (D - E)})} = 0.40089$$

$$R_2 - \frac{(A^2 \cdot (C^2 \cdot (D - E) + D) - B \cdot D \cdot (2 \cdot A - B))}{(A \cdot C \cdot \sqrt{E} \cdot \sqrt{D \cdot (A - B)^2 + A^2 \cdot C^2 \cdot (D - E)})} = 0.00000$$



$$R_1 - \frac{N_2 \cdot \sqrt{N_4 \cdot N_5^2 \cdot (N_3^2 \cdot N_5 \cdot (N_1 - N_2)^2 - N_2^2 \cdot (N_4 - N_5))}}{N_5 \cdot (N_3^2 \cdot N_5 \cdot (N_1 - N_2)^2 - N_2^2 \cdot (N_4 - N_5))} = 0.00000$$

$$R_1 - \frac{(A \cdot C \cdot \sqrt{E} \cdot \sqrt{D \cdot (A-B)^2 + A^2 \cdot C^2 \cdot (D-E)})}{(A^2 \cdot (C^2 \cdot (D-E) + D) - B \cdot D \cdot (2 \cdot A - B))} = 0.00000$$

$$\frac{(A \cdot C \cdot \sqrt{E} \cdot \sqrt{D \cdot (A-B)^2 + A^2 \cdot C^2 \cdot (D-E)})}{(A^2 \cdot (C^2 \cdot (D-E) + D) - B \cdot D \cdot (2 \cdot A - B))} - \frac{N_2 \cdot \sqrt{N_4 \cdot N_5^2 \cdot (N_3^2 \cdot N_5 \cdot (N_1 - N_2)^2 - N_2^2 \cdot (N_4 - N_5))}}{N_5 \cdot (N_3^2 \cdot N_5 \cdot (N_1 - N_2)^2 - N_2^2 \cdot (N_4 - N_5))} = 0.00000$$

$A = 0.19398$
$B = 0.31903$
$C = 0.87934$
$D = 0.46875$
$E = 0.62089$

$ab = 1.00000$
$N_1 = 5.15522$
$N_2 = 3.13452$
$N_3 = 1.13721$
$N_4 = 2.13334$
$N_5 = 1.61058$

$R_1 = 2.49446$

$$\frac{N_2 \cdot \sqrt{N_4 \cdot N_5^2 \cdot (N_3^2 \cdot N_5 \cdot (N_1 - N_2)^2 - N_2^2 \cdot (N_4 - N_5))}}{N_5 \cdot (N_3^2 \cdot N_5 \cdot (N_1 - N_2)^2 - N_2^2 \cdot (N_4 - N_5))} = 2.49446$$

$$\frac{(A \cdot C \cdot \sqrt{E} \cdot \sqrt{D \cdot (A-B)^2 + A^2 \cdot C^2 \cdot (D-E)})}{(A^2 \cdot (C^2 \cdot (D-E) + D) - B \cdot D \cdot (2 \cdot A - B))} = 2.49446$$

$R_2 = 0.40089$

$$\frac{(A^2 \cdot (C^2 \cdot (D-E) + D) - B \cdot D \cdot (2 \cdot A - B))}{(A \cdot C \cdot \sqrt{E} \cdot \sqrt{D \cdot (A-B)^2 + A^2 \cdot C^2 \cdot (D-E)})} = 0.40089$$

$$R_2 - \frac{(A^2 \cdot (C^2 \cdot (D-E) + D) - B \cdot D \cdot (2 \cdot A - B))}{(A \cdot C \cdot \sqrt{E} \cdot \sqrt{D \cdot (A-B)^2 + A^2 \cdot C^2 \cdot (D-E)})} = 0.00000$$

2SMT7R3

Given.

Unit. $ab := 1$ $N_1 := 2.23143$

$N_2 := 2.97345$ $N_3 := 1.83880$

$N_4 := 1.49169$

$A := \frac{1}{N_1}$ $B := \frac{1}{N_2}$ $C := \frac{1}{N_3}$ $D := \frac{1}{N_4}$

Descriptions.

$bN_1 := \sqrt{N_1^2 + 1}$ $bc := \frac{1}{bN_1}$ $cd := \frac{bc}{bN_1}$

$gh := N_4 \cdot cd$ $bg := N_4 - gh$ $eg := \frac{bg}{N_3}$

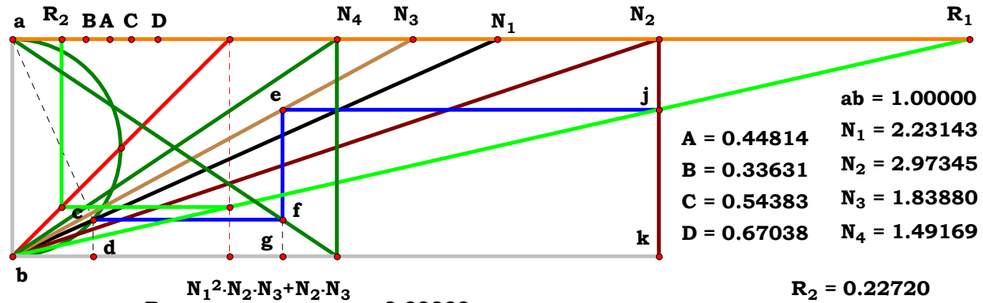
$R_1 := \frac{N_2}{eg}$ $R_2 := \frac{1}{R_1}$ $R_1 = 4.401482$

Definitions.

$$R_1 - \frac{N_1^2 \cdot N_2 \cdot N_3 + N_2 \cdot N_3}{N_1^2 \cdot N_4} = 0$$

$N_1 - \frac{1}{A} = 0$ $N_2 - \frac{1}{B} = 0$ $N_3 - \frac{1}{C} = 0$ $N_4 - \frac{1}{D} = 0$

$$R_1 - \frac{D \cdot (A^2 + 1)}{B \cdot C} = 0 \qquad R_2 - \frac{B \cdot C}{D \cdot (A^2 + 1)} = 0$$



ab = 1.00000
A = 0.44814
B = 0.33631
C = 0.54383
D = 0.67038
N_1 = 2.23143
N_2 = 2.97345
N_3 = 1.83880
N_4 = 1.49169

$R_1 = 4.40149$

$$\frac{N_1^2 \cdot N_2 \cdot N_3 + N_2 \cdot N_3}{N_1^2 \cdot N_4} = 4.40149$$

$$\frac{(D \cdot (A^2+1))}{(B \cdot C)} = 4.40149$$

$$R_1 - \frac{N_1^2 \cdot N_2 \cdot N_3 + N_2 \cdot N_3}{N_1^2 \cdot N_4} = 0.00000$$

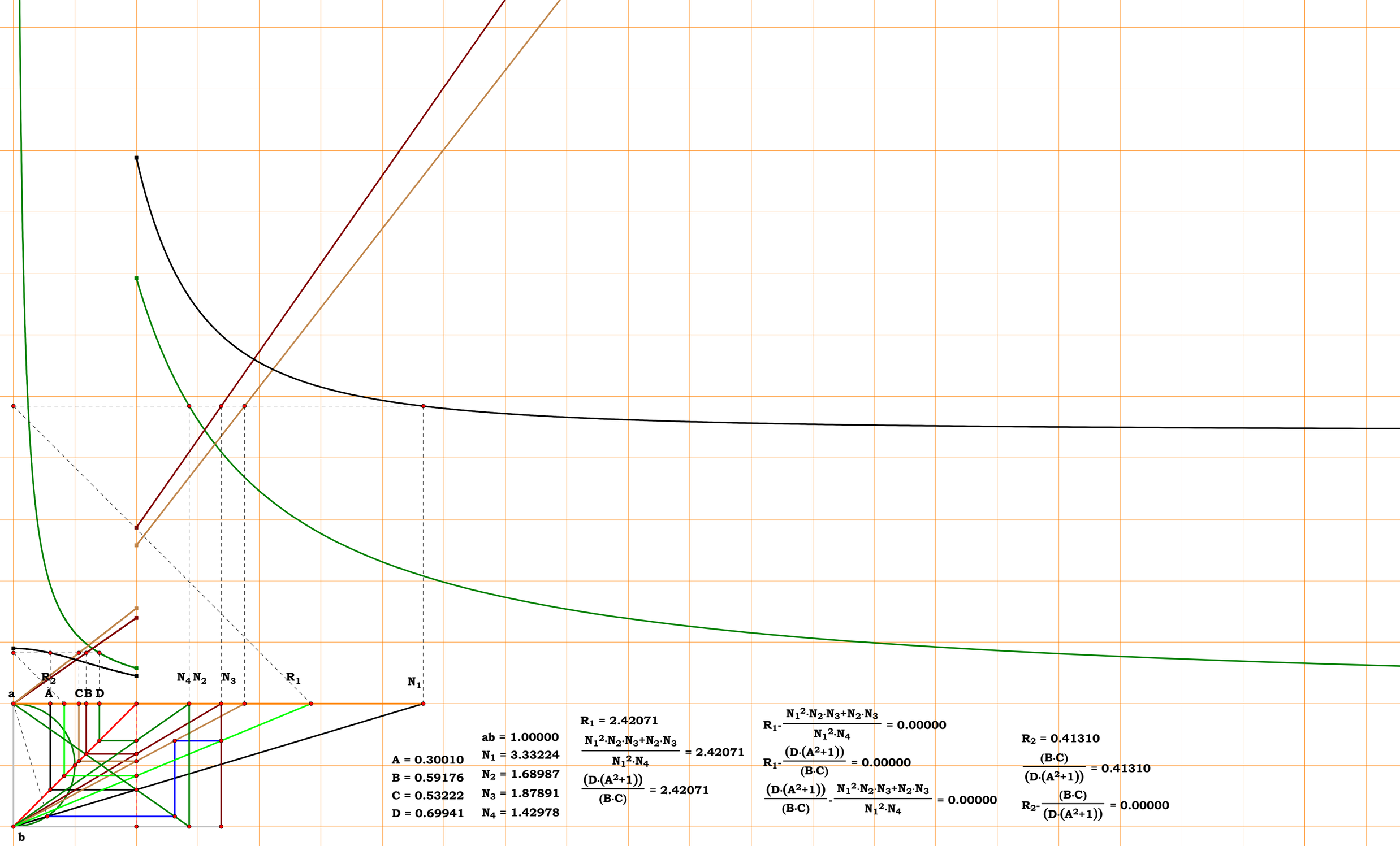
$$R_1 - \frac{(D \cdot (A^2+1))}{(B \cdot C)} = 0.00000$$

$$\frac{(D \cdot (A^2+1))}{(B \cdot C)} - \frac{N_1^2 \cdot N_2 \cdot N_3 + N_2 \cdot N_3}{N_1^2 \cdot N_4} = 0.00000$$

$R_2 = 0.22720$

$$\frac{(B \cdot C)}{(D \cdot (A^2+1))} = 0.22720$$

$$R_2 - \frac{(B \cdot C)}{(D \cdot (A^2+1))} = 0.00000$$



ab = 1.00000

A = 0.30010
B = 0.59176
C = 0.53222
D = 0.69941

N_1 = 3.33224
N_2 = 1.68987
N_3 = 1.87891
N_4 = 1.42978

$R_1 = 2.42071$

$\frac{N_1^2 \cdot N_2 \cdot N_3 + N_2 \cdot N_3}{N_1^2 \cdot N_4} = 2.42071$

$\frac{(D \cdot (A^2+1))}{(B \cdot C)} = 2.42071$

$R_1 - \frac{N_1^2 \cdot N_2 \cdot N_3 + N_2 \cdot N_3}{N_1^2 \cdot N_4} = 0.00000$

$R_1 - \frac{(D \cdot (A^2+1))}{(B \cdot C)} = 0.00000$

$\frac{(D \cdot (A^2+1))}{(B \cdot C)} - \frac{N_1^2 \cdot N_2 \cdot N_3 + N_2 \cdot N_3}{N_1^2 \cdot N_4} = 0.00000$

$R_2 = 0.41310$

$\frac{(B \cdot C)}{(D \cdot (A^2+1))} = 0.41310$

$R_2 - \frac{(B \cdot C)}{(D \cdot (A^2+1))} = 0.00000$

2SMT7R4

Given.

Unit. $ab := 1$

$N_1 := 2.39288 \quad N_2 := 1.32039 \quad N_3 := 1.94001$

$N_4 := 2.76890 \quad N_5 := 1.46159 \quad N_6 := 1.64247$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2} \quad C := \frac{1}{N_3}$

$D := \frac{1}{N_4} \quad E := \frac{1}{N_5} \quad F := \frac{1}{N_6}$

Descriptions.

$gh := \frac{N_2}{N_1} \quad bh := N_3 \cdot (1 - gh) \quad aj := \frac{bh}{gh}$

$bj := \sqrt{1 + aj^2} \quad bf := \frac{1}{bj} \quad de := \frac{bf}{bj}$

$be := de \cdot N_4 \quad ce := 1 - \frac{be}{N_5}$

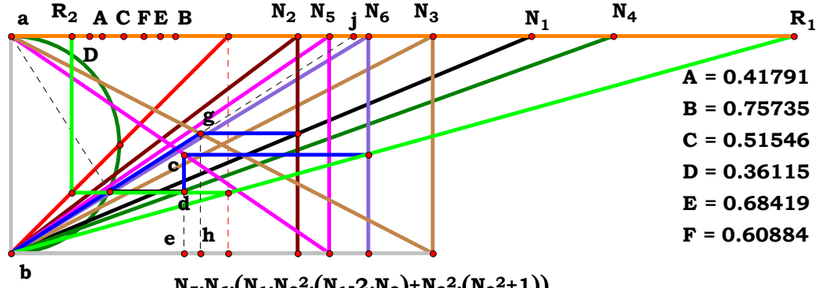
$R_1 := \frac{N_6}{ce} \quad R_2 := \frac{1}{R_1} \quad R_1 = 3.601115$

Definitions.

$$R_1 - \frac{N_5 \cdot N_6 \cdot \left[N_1 \cdot N_3^{\,2} \cdot \left(N_1 - 2 \cdot N_2\right) + N_2^{\,2} \cdot \left(N_3^{\,2} + 1\right)\right]}{N_5 \cdot \left[N_1 \cdot N_3^{\,2} \cdot \left(N_1 - 2 \cdot N_2\right) + N_2^{\,2} \cdot \left(N_3^{\,2} + 1\right)\right] - N_2^{\,2} \cdot N_4} = 0$$

$N_1 - \frac{1}{A} = 0 \quad N_2 - \frac{1}{B} = 0 \quad N_3 - \frac{1}{C} = 0 \quad N_4 - \frac{1}{D} = 0 \quad N_5 - \frac{1}{E} = 0 \quad N_6 - \frac{1}{F} = 0$

$$R_1 - \frac{D \cdot (A - B)^2 + A^2 \cdot C^2 \cdot D}{D \cdot F \cdot (A - B)^2 + A^2 \cdot C^2 \cdot F \cdot (D - E)} = 0 \qquad R_2 - \frac{D \cdot F \cdot (A - B)^2 + A^2 \cdot C^2 \cdot F \cdot (D - E)}{D \cdot (A - B)^2 + A^2 \cdot C^2 \cdot D} = 0$$



$ab = 1.00000$
$N_1 = 2.39288$
$N_2 = 1.32039$
$N_3 = 1.94001$
$N_4 = 2.76890$
$N_5 = 1.46159$
$N_6 = 1.64247$

$A = 0.41791$
$B = 0.75735$
$C = 0.51546$
$D = 0.36115$
$E = 0.68419$
$F = 0.60884$

$$R_1 - \frac{N_5 \cdot N_6 \cdot (N_1 \cdot N_3^2 \cdot (N_1 - 2 \cdot N_2) + N_2^2 \cdot (N_3^2 + 1))}{N_5 \cdot (N_1 \cdot N_3^2 \cdot (N_1 - 2 \cdot N_2) + N_2^2 \cdot (N_3^2 + 1)) - N_2^2 \cdot N_4} = 0.00000$$

$$R_1 - \frac{(D \cdot (A-B)^2 + A^2 \cdot C^2 \cdot D)}{(D \cdot F \cdot (A-B)^2 + A^2 \cdot C^2 \cdot F \cdot (D-E))} = 0.00000$$

$$\frac{(D \cdot (A-B)^2 + A^2 \cdot C^2 \cdot D)}{(D \cdot F \cdot (A-B)^2 + A^2 \cdot C^2 \cdot F \cdot (D-E))} - \frac{N_5 \cdot N_6 \cdot (N_1 \cdot N_3^2 \cdot (N_1 - 2 \cdot N_2) + N_2^2 \cdot (N_3^2 + 1))}{N_5 \cdot (N_1 \cdot N_3^2 \cdot (N_1 - 2 \cdot N_2) + N_2^2 \cdot (N_3^2 + 1)) - N_2^2 \cdot N_4} = 0.00000$$

$R_1 = 3.60105$

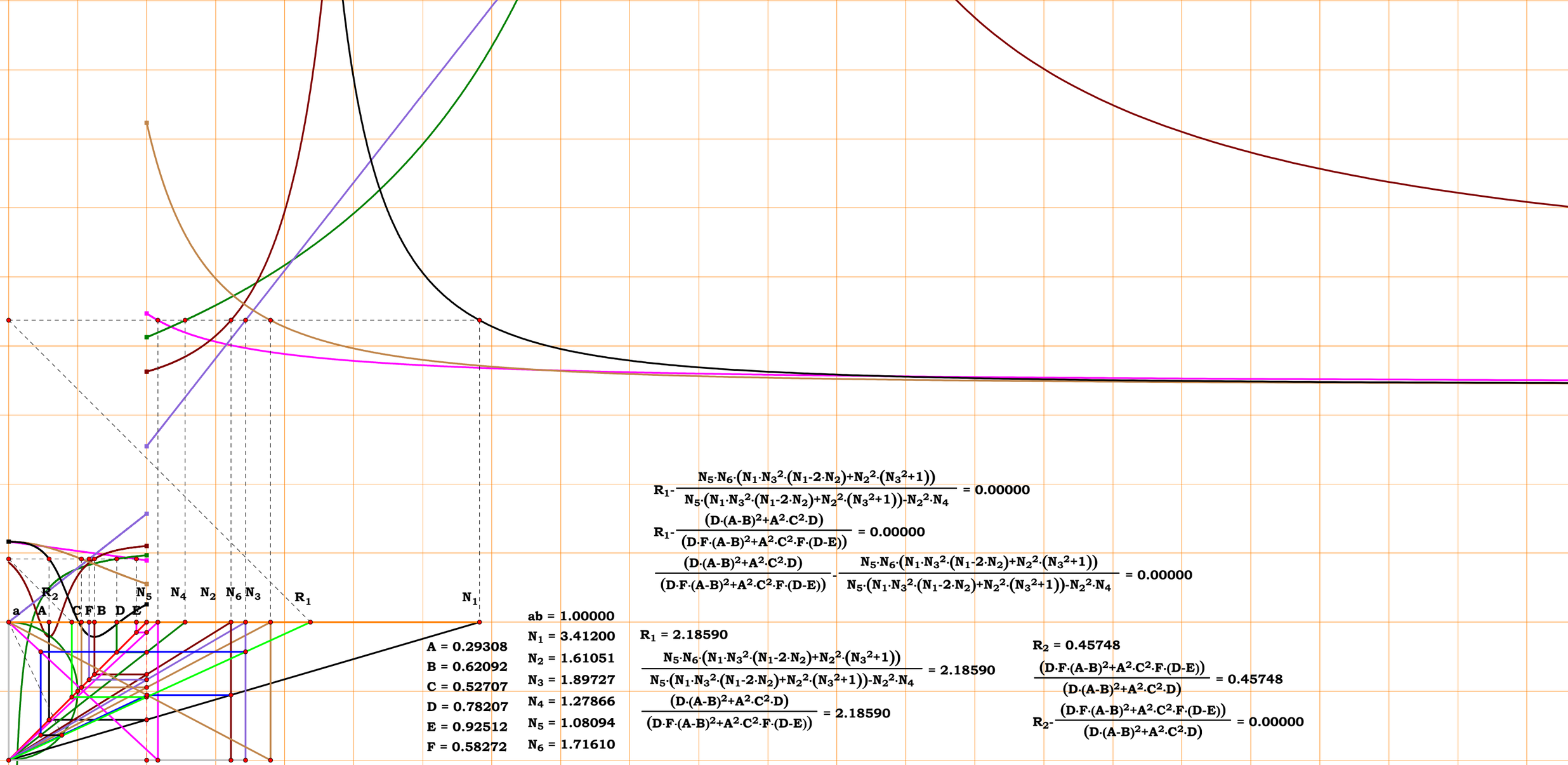
$$\frac{N_5 \cdot N_6 \cdot (N_1 \cdot N_3^2 \cdot (N_1 - 2 \cdot N_2) + N_2^2 \cdot (N_3^2 + 1))}{N_5 \cdot (N_1 \cdot N_3^2 \cdot (N_1 - 2 \cdot N_2) + N_2^2 \cdot (N_3^2 + 1)) - N_2^2 \cdot N_4} = 3.60105$$

$$\frac{(D \cdot (A-B)^2 + A^2 \cdot C^2 \cdot D)}{(D \cdot F \cdot (A-B)^2 + A^2 \cdot C^2 \cdot F \cdot (D-E))} = 3.60105$$

$R_2 = 0.27770$

$$\frac{(D \cdot F \cdot (A-B)^2 + A^2 \cdot C^2 \cdot F \cdot (D-E))}{(D \cdot (A-B)^2 + A^2 \cdot C^2 \cdot D)} = 0.27770$$

$$R_2 - \frac{(D \cdot F \cdot (A-B)^2 + A^2 \cdot C^2 \cdot F \cdot (D-E))}{(D \cdot (A-B)^2 + A^2 \cdot C^2 \cdot D)} = 0.00000$$



$$R_1-\frac{N_5\cdot N_6\cdot\left(N_1\cdot N_3^2\cdot\left(N_1-2\cdot N_2\right)+N_2^2\cdot\left(N_3^2+1\right)\right)}{N_5\cdot\left(N_1\cdot N_3^2\cdot\left(N_1-2\cdot N_2\right)+N_2^2\cdot\left(N_3^2+1\right)\right)-N_2^2\cdot N_4}=0.00000$$

$$R_1-\frac{\left(D\cdot(A-B)^2+A^2\cdot C^2\cdot D\right)}{\left(D\cdot F\cdot(A-B)^2+A^2\cdot C^2\cdot F\cdot(D-E)\right)}=0.00000$$

$$\frac{\left(D\cdot(A-B)^2+A^2\cdot C^2\cdot D\right)}{\left(D\cdot F\cdot(A-B)^2+A^2\cdot C^2\cdot F\cdot(D-E)\right)}-\frac{N_5\cdot N_6\cdot\left(N_1\cdot N_3^2\cdot\left(N_1-2\cdot N_2\right)+N_2^2\cdot\left(N_3^2+1\right)\right)}{N_5\cdot\left(N_1\cdot N_3^2\cdot\left(N_1-2\cdot N_2\right)+N_2^2\cdot\left(N_3^2+1\right)\right)-N_2^2\cdot N_4}=0.00000$$

ab = 1.00000

A = 0.29308

B = 0.62092

C = 0.52707

D = 0.78207

E = 0.92512

F = 0.58272

N_1 = 3.41200

N_2 = 1.61051

N_3 = 1.89727

N_4 = 1.27866

N_5 = 1.08094

N_6 = 1.71610

$R_1 = 2.18590$

$$\frac{N_5\cdot N_6\cdot\left(N_1\cdot N_3^2\cdot\left(N_1-2\cdot N_2\right)+N_2^2\cdot\left(N_3^2+1\right)\right)}{N_5\cdot\left(N_1\cdot N_3^2\cdot\left(N_1-2\cdot N_2\right)+N_2^2\cdot\left(N_3^2+1\right)\right)-N_2^2\cdot N_4}=2.18590$$

$$\frac{\left(D\cdot(A-B)^2+A^2\cdot C^2\cdot D\right)}{\left(D\cdot F\cdot(A-B)^2+A^2\cdot C^2\cdot F\cdot(D-E)\right)}=2.18590$$

$R_2 = 0.45748$

$$\frac{\left(D\cdot F\cdot(A-B)^2+A^2\cdot C^2\cdot F\cdot(D-E)\right)}{\left(D\cdot(A-B)^2+A^2\cdot C^2\cdot D\right)}=0.45748$$

$$R_2-\frac{\left(D\cdot F\cdot(A-B)^2+A^2\cdot C^2\cdot F\cdot(D-E)\right)}{\left(D\cdot(A-B)^2+A^2\cdot C^2\cdot D\right)}=0.00000$$

2SMT7R5

Given.

Unit. $ab := 1 \quad N_1 := 2.85735$

$N_2 := 1.39447 \quad N_3 := 1.71014$

$N_4 := 2.12984 \quad N_5 := 2.44336$

$$A := \frac{1}{N_1} \quad B := \frac{1}{N_2} \quad C := \frac{1}{N_3} \quad D := \frac{1}{N_4} \quad E := \frac{1}{N_5}$$

Descriptions.

$$bN_1 := \sqrt{1 + N_1^{\,2}} \quad bd := \frac{1}{bN_1} \quad de := \frac{bd}{bN_1}$$

$$be := N_1 \cdot de \quad ce := \frac{be}{N_2} \quad bh := N_3 \cdot (1 - ce)$$

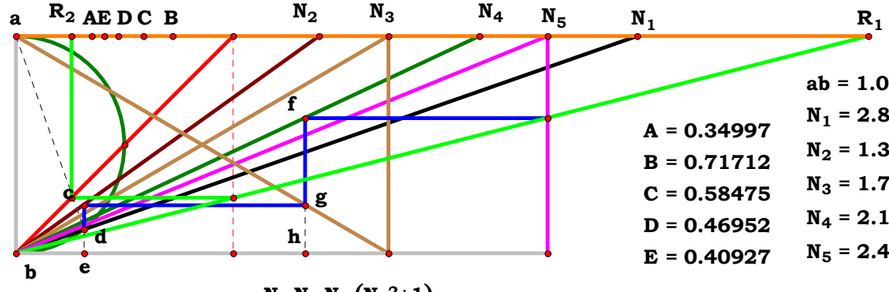
$$fh := \frac{bh}{N_4} \quad R_1 := \frac{N_5}{fh} \quad R_2 := \frac{1}{R_1} \quad R_1 = 3.919317$$

Definitions.

$$R_1 - \frac{N_2 \cdot N_4 \cdot N_5 \cdot \left(N_1^{\,2} + 1\right)}{N_3 \cdot \left(N_1^{\,2} \cdot N_2 - N_1 + N_2\right)} = 0$$

$$N_1 - \frac{1}{A} = 0 \qquad N_2 - \frac{1}{B} = 0 \qquad N_3 - \frac{1}{C} = 0 \qquad N_4 - \frac{1}{D} = 0 \qquad N_5 - \frac{1}{E} = 0$$

$$R_1 - \frac{C \cdot \left(A^2 + 1\right)}{D \cdot E \cdot \left(A^2 - B \cdot A + 1\right)} = 0 \qquad R_2 - \frac{D \cdot E \cdot \left(A^2 - B \cdot A + 1\right)}{C \cdot \left(A^2 + 1\right)} = 0$$



$A = 0.34997$
$B = 0.71712$
$C = 0.58475$
$D = 0.46952$
$E = 0.40927$

$ab = 1.00000$
$N_1 = 2.85735$
$N_2 = 1.39447$
$N_3 = 1.71014$
$N_4 = 2.12984$
$N_5 = 2.44336$

$R_1 = 3.91933$

$$\frac{N_2 \cdot N_4 \cdot N_5 \cdot (N_1^{\,2}+1)}{N_3 \cdot ((N_1^{\,2} \cdot N_2 - N_1) + N_2)} = 3.91933$$

$$\frac{(C \cdot (A^2+1))}{(D \cdot E \cdot ((A^2 - A \cdot B)+1))} = 3.91933$$

$$R_1 - \frac{N_2 \cdot N_4 \cdot N_5 \cdot (N_1^{\,2}+1)}{N_3 \cdot ((N_1^{\,2} \cdot N_2 - N_1) + N_2)} = 0.00000$$

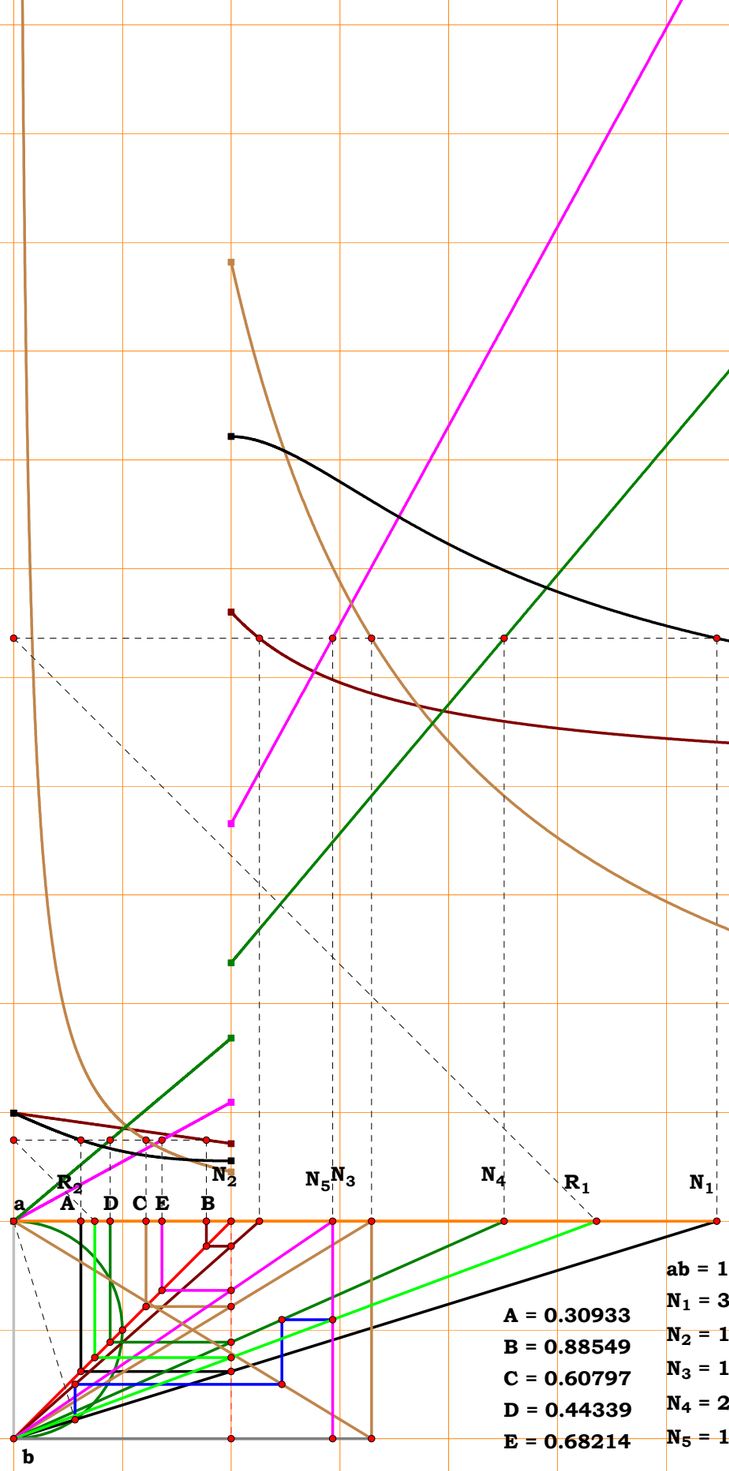
$$R_1 - \frac{(C \cdot (A^2+1))}{(D \cdot E \cdot ((A^2 - A \cdot B)+1))} = 0.00000$$

$$\frac{(C \cdot (A^2+1))}{(D \cdot E \cdot ((A^2 - A \cdot B)+1))} - \frac{N_2 \cdot N_4 \cdot N_5 \cdot (N_1^{\,2}+1)}{N_3 \cdot ((N_1^{\,2} \cdot N_2 - N_1) + N_2)} = 0.00000$$

$R_2 = 0.25515$

$$\frac{(D \cdot E \cdot ((A^2 - A \cdot B)+1))}{(C \cdot (A^2+1))} = 0.25515$$

$$R_2 - \frac{(D \cdot E \cdot ((A^2 - A \cdot B)+1))}{(C \cdot (A^2+1))} = 0.00000$$



$A = 0.30933$
$B = 0.88549$
$C = 0.60797$
$D = 0.44339$
$E = 0.68214$

$ab = 1.00000$
$N_1 = 3.23275$
$N_2 = 1.12932$
$N_3 = 1.64482$
$N_4 = 2.25534$
$N_5 = 1.46597$

$R_1 = 2.68012$

$$\frac{N_2 \cdot N_4 \cdot N_5 \cdot (N_1^2+1)}{N_3 \cdot ((N_1^2 \cdot N_2 - N_1)+N_2)} = 2.68012$$

$$\frac{(C \cdot (A^2+1))}{(D \cdot E \cdot ((A^2 - A \cdot B)+1))} = 2.68012$$

$$R_1 - \frac{N_2 \cdot N_4 \cdot N_5 \cdot (N_1^2+1)}{N_3 \cdot ((N_1^2 \cdot N_2 - N_1)+N_2)} = 0.00000$$

$$R_1 - \frac{(C \cdot (A^2+1))}{(D \cdot E \cdot ((A^2 - A \cdot B)+1))} = 0.00000$$

$$\frac{(C \cdot (A^2+1))}{(D \cdot E \cdot ((A^2 - A \cdot B)+1))} - \frac{N_2 \cdot N_4 \cdot N_5 \cdot (N_1^2+1)}{N_3 \cdot ((N_1^2 \cdot N_2 - N_1)+N_2)} = 0.00000$$

$R_2 = 0.37312$

$$\frac{(D \cdot E \cdot ((A^2 - A \cdot B)+1))}{(C \cdot (A^2+1))} = 0.37312$$

$$R_2 - \frac{(D \cdot E \cdot ((A^2 - A \cdot B)+1))}{(C \cdot (A^2+1))} = 0.00000$$

2SMT7R6

Given.

Unit. $ab := 1$

$N_1 := 2.64953 \quad N_2 := 1.24109$

$N_3 := 1.45116 \quad N_4 := 1.77041$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2} \quad C := \frac{1}{N_3} \quad D := \frac{1}{N_4}$

Descriptions.

$hj := \frac{N_4}{N_4 + N_1} \quad ce := \sqrt{hj \cdot (1 - hj)} \quad df := \frac{ce}{N_3}$

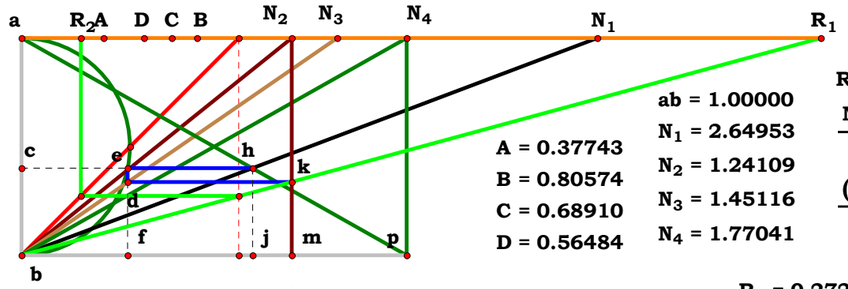
$R_1 := \frac{N_2}{df} \quad R_2 := \frac{1}{R_1} \quad R_1 = 3.675476$

Definitions.

$R_1 - \frac{N_2 \cdot N_3 \cdot (N_1 + N_4)}{\sqrt{N_1 \cdot N_4}} = 0$

$N_1 - \frac{1}{A} = 0 \quad N_2 - \frac{1}{B} = 0 \quad N_3 - \frac{1}{C} = 0 \quad N_4 - \frac{1}{D} = 0$

$R_1 - \frac{\sqrt{A \cdot D} \cdot (A + D)}{A \cdot B \cdot C \cdot D} = 0 \quad R_2 - \frac{A \cdot B \cdot C \cdot D}{\sqrt{A \cdot D} \cdot (A + D)} = 0$



$A = 0.37743$
$B = 0.80574$
$C = 0.68910$
$D = 0.56484$

$ab = 1.00000$
$N_1 = 2.64953$
$N_2 = 1.24109$
$N_3 = 1.45116$
$N_4 = 1.77041$

$R_1 = 3.67548$

$\frac{N_2 \cdot N_3 \cdot (N_1 + N_4)}{\sqrt{N_1 \cdot N_4}} = 3.67548$

$\frac{(\sqrt{A \cdot D} \cdot (A + D))}{(A \cdot B \cdot C \cdot D)} = 3.67548$

$R_1 - \frac{N_2 \cdot N_3 \cdot (N_1 + N_4)}{\sqrt{N_1 \cdot N_4}} = 0.00000$

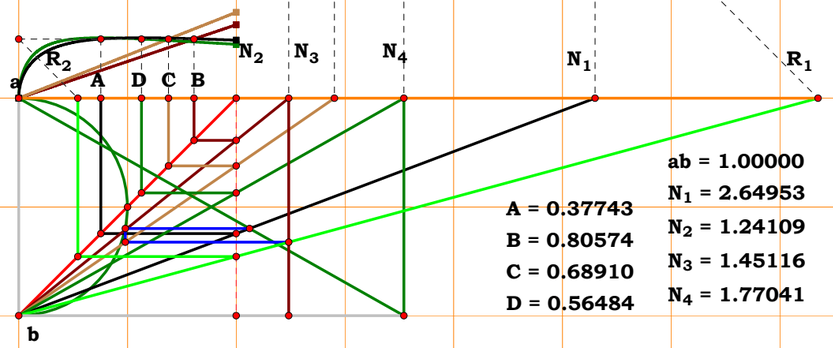
$R_1 - \frac{(\sqrt{A \cdot D} \cdot (A + D))}{(A \cdot B \cdot C \cdot D)} = 0.00000$

$\frac{(\sqrt{A \cdot D} \cdot (A + D))}{(A \cdot B \cdot C \cdot D)} - \frac{N_2 \cdot N_3 \cdot (N_1 + N_4)}{\sqrt{N_1 \cdot N_4}} = 0.00000$

$R_2 = 0.27207$

$\frac{(A \cdot B \cdot C \cdot D)}{(\sqrt{A \cdot D} \cdot (A + D))} = 0.27207$

$R_2 - \frac{(A \cdot B \cdot C \cdot D)}{(\sqrt{A \cdot D} \cdot (A + D))} = 0.00000$



$A = 0.37743$

$B = 0.80574$

$C = 0.68910$

$D = 0.56484$

$ab = 1.00000$

$N_1 = 2.64953$

$N_2 = 1.24109$

$N_3 = 1.45116$

$N_4 = 1.77041$

$R_1 = 3.67548$

$$\frac{N_2 \cdot N_3 \cdot (N_1 + N_4)}{\sqrt{N_1 \cdot N_4}} = 3.67548$$

$$\frac{\left(\sqrt{A \cdot D} \cdot (A+D)\right)}{(A \cdot B \cdot C \cdot D)} = 3.67548$$

$$R_1 - \frac{N_2 \cdot N_3 \cdot (N_1 + N_4)}{\sqrt{N_1 \cdot N_4}} = 0.00000$$

$$R_1 - \frac{\left(\sqrt{A \cdot D} \cdot (A+D)\right)}{(A \cdot B \cdot C \cdot D)} = 0.00000$$

$$\frac{\left(\sqrt{A \cdot D} \cdot (A+D)\right)}{(A \cdot B \cdot C \cdot D)} - \frac{N_2 \cdot N_3 \cdot (N_1 + N_4)}{\sqrt{N_1 \cdot N_4}} = 0.00000$$

$R_2 = 0.27207$

$$\frac{(A \cdot B \cdot C \cdot D)}{\left(\sqrt{A \cdot D} \cdot (A+D)\right)} = 0.27207$$

$$R_2 - \frac{(A \cdot B \cdot C \cdot D)}{\left(\sqrt{A \cdot D} \cdot (A+D)\right)} = 0.00000$$

2SMT8R0

Given.

Unit. $AB := 1$

$N_1 := 2.51564 \quad N_2 := 2.13177$

$N_3 := 1.54776 \quad N_4 := 1.24254$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2} \quad C := \frac{1}{N_3} \quad D := \frac{1}{N_4}$

Descriptions.

$gh := \frac{N_3}{N_2 + N_3} \quad bh := \frac{N_2 \cdot N_3}{N_2 + N_3} \quad be := \frac{gh \cdot N_1}{N_1 - bh}$

$cd := N_4 \cdot (1 - be) \quad ac := \frac{1}{2} - \sqrt{\left(\frac{1}{2}\right)^2 - cd^2}$

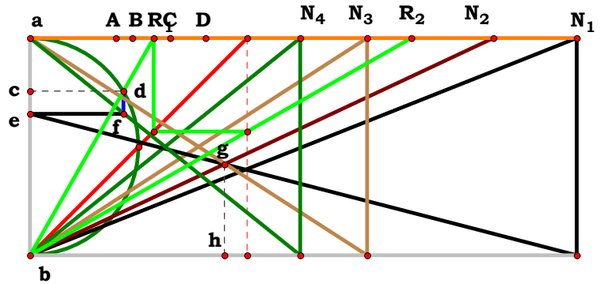
$R_1 := \frac{cd}{1 - ac} \quad R_2 := \frac{1}{R_1} \quad R_1 = 0.570412$

Definitions.

$$R_1 - \frac{2 \cdot N_2 \cdot N_4 \cdot (N_1 - N_3)}{\sqrt{(N_1 \cdot N_2 + N_1 \cdot N_3 - N_2 \cdot N_3)^2 - 4 \cdot N_2^2 \cdot N_4^2 \cdot (N_1 - N_3)^2} + N_1 \cdot N_2 + N_1 \cdot N_3 - N_2 \cdot N_3} = 0$$

$N_1 - \frac{1}{A} = 0 \quad N_2 - \frac{1}{B} = 0 \quad N_3 - \frac{1}{C} = 0 \quad N_4 - \frac{1}{D} = 0$

$$R_1 - \frac{2 \cdot (A - C)}{D \cdot (A - B - C) - \sqrt{D^2 \cdot (A - B - C)^2 - 4 \cdot (A - C)^2}} = 0 \quad R_2 - \frac{D \cdot (A - B - C) - \sqrt{D^2 \cdot (A - B - C)^2 - 4 \cdot (A - C)^2}}{2 \cdot (A - C)} = 0$$



$A = 0.39751$
$B = 0.46909$
$C = 0.64609$
$D = 0.80480$

$ab = 1.00000$
$N_1 = 2.51564$
$N_2 = 2.13177$
$N_3 = 1.54776$
$N_4 = 1.24254$

$R_1 = 0.57041$

$$\frac{2 \cdot N_2 \cdot N_4 \cdot (N_1 - N_3)}{\left(\sqrt{((N_1 \cdot N_2 + N_1 \cdot N_3) - N_2 \cdot N_3)^2 - 4 \cdot N_2^2 \cdot N_4^2 \cdot (N_1 - N_3)^2} + N_1 \cdot N_2 + N_1 \cdot N_3\right) - N_2 \cdot N_3} = 0.57041$$

$$\frac{(2 \cdot (A - C))}{\left(D \cdot (A - B - C) - \sqrt{D^2 \cdot (A - B - C)^2 - 4 \cdot (A - C)^2}\right)} = 0.57041$$

$$R_1 - \frac{2 \cdot N_2 \cdot N_4 \cdot (N_1 - N_3)}{\left(\sqrt{((N_1 \cdot N_2 + N_1 \cdot N_3) - N_2 \cdot N_3)^2 - 4 \cdot N_2^2 \cdot N_4^2 \cdot (N_1 - N_3)^2} + N_1 \cdot N_2 + N_1 \cdot N_3\right) - N_2 \cdot N_3} = 0.00000$$

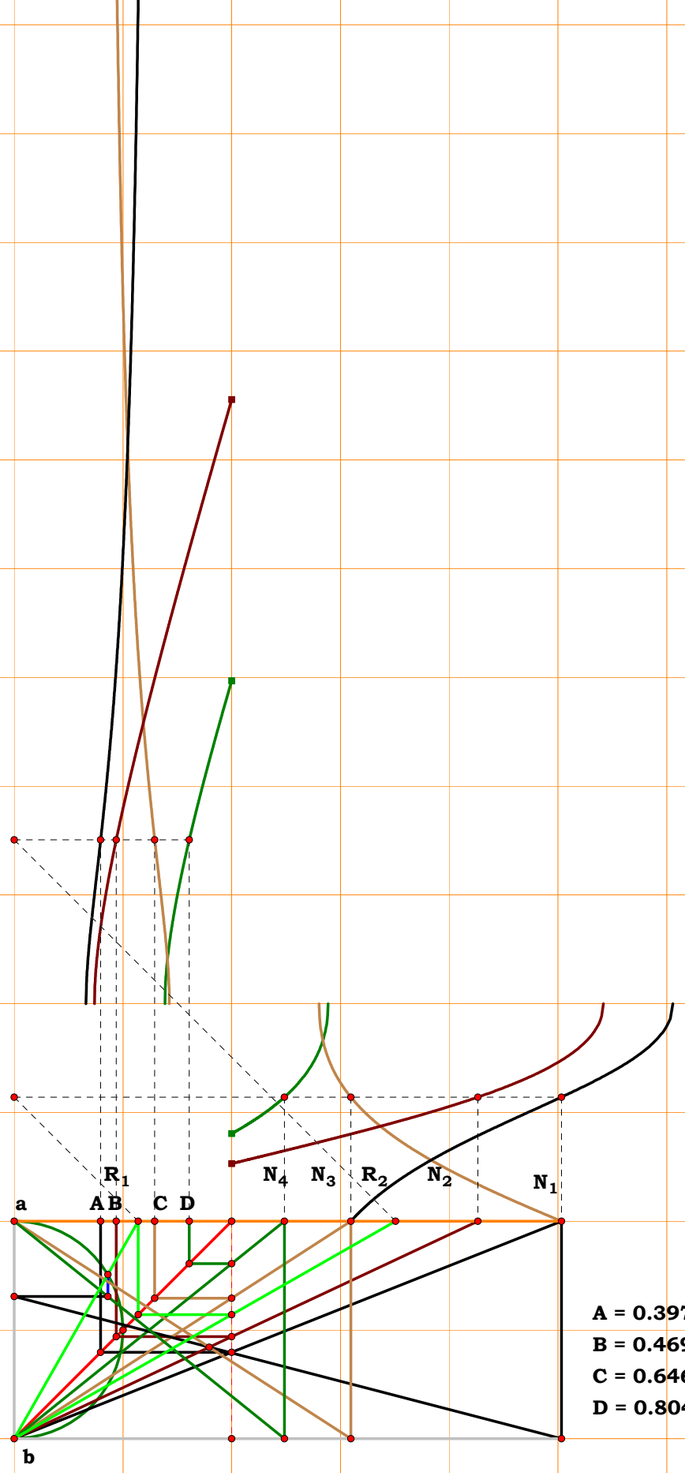
$$R_1 - \frac{(2 \cdot (A - C))}{\left(D \cdot (A - B - C) - \sqrt{D^2 \cdot (A - B - C)^2 - 4 \cdot (A - C)^2}\right)} = 0.00000$$

$$\frac{(2 \cdot (A - C))}{\left(D \cdot (A - B - C) - \sqrt{D^2 \cdot (A - B - C)^2 - 4 \cdot (A - C)^2}\right)} - \frac{2 \cdot N_2 \cdot N_4 \cdot (N_1 - N_3)}{\left(\sqrt{((N_1 \cdot N_2 + N_1 \cdot N_3) - N_2 \cdot N_3)^2 - 4 \cdot N_2^2 \cdot N_4^2 \cdot (N_1 - N_3)^2} + N_1 \cdot N_2 + N_1 \cdot N_3\right) - N_2 \cdot N_3} = 0.00000$$

$R_2 = 1.75314$

$$\frac{\left(D \cdot (A - B - C) - \sqrt{D^2 \cdot (A - B - C)^2 - 4 \cdot (A - C)^2}\right)}{(2 \cdot (A - C))} = 1.75314$$

$$R_2 - \frac{\left(D \cdot (A - B - C) - \sqrt{D^2 \cdot (A - B - C)^2 - 4 \cdot (A - C)^2}\right)}{(2 \cdot (A - C))} = 0.00000$$



A = 0.39751
B = 0.46909
C = 0.64609
D = 0.80480

ab = 1.00000
N_1 = 2.51564
N_2 = 2.13177
N_3 = 1.54776
N_4 = 1.24254

$$R_1 - \frac{2 \cdot N_2 \cdot N_4 \cdot (N_1 - N_3)}{\left(\sqrt{((N_1 \cdot N_2 + N_1 \cdot N_3) - N_2 \cdot N_3)^2 - 4 \cdot N_2^2 \cdot N_4^2 \cdot (N_1 - N_3)^2} + N_1 \cdot N_2 + N_1 \cdot N_3\right) - N_2 \cdot N_3} = 0.00000$$

$$R_1 - \frac{(2 \cdot (A - C))}{(D \cdot (A - B - C) - \sqrt{D^2 \cdot (A - B - C)^2 - 4 \cdot (A - C)^2})} = 0.00000$$

$$\frac{(2 \cdot (A - C))}{(D \cdot (A - B - C) - \sqrt{D^2 \cdot (A - B - C)^2 - 4 \cdot (A - C)^2})} - \frac{2 \cdot N_2 \cdot N_4 \cdot (N_1 - N_3)}{\left(\sqrt{((N_1 \cdot N_2 + N_1 \cdot N_3) - N_2 \cdot N_3)^2 - 4 \cdot N_2^2 \cdot N_4^2 \cdot (N_1 - N_3)^2} + N_1 \cdot N_2 + N_1 \cdot N_3\right) - N_2 \cdot N_3} = 0.00000$$

R_1 = 0.57041

$$\frac{2 \cdot N_2 \cdot N_4 \cdot (N_1 - N_3)}{\left(\sqrt{((N_1 \cdot N_2 + N_1 \cdot N_3) - N_2 \cdot N_3)^2 - 4 \cdot N_2^2 \cdot N_4^2 \cdot (N_1 - N_3)^2} + N_1 \cdot N_2 + N_1 \cdot N_3\right) - N_2 \cdot N_3} = 0.57041$$

$$\frac{(2 \cdot (A - C))}{(D \cdot (A - B - C) - \sqrt{D^2 \cdot (A - B - C)^2 - 4 \cdot (A - C)^2})} = 0.57041$$

R_2 = 1.75314

$$\frac{(D \cdot (A - B - C) - \sqrt{D^2 \cdot (A - B - C)^2 - 4 \cdot (A - C)^2})}{(2 \cdot (A - C))} = 1.75314$$

$$R_2 - \frac{(D \cdot (A - B - C) - \sqrt{D^2 \cdot (A - B - C)^2 - 4 \cdot (A - C)^2})}{(2 \cdot (A - C))} = 0.00000$$

2SMT8R1

Given.

Unit. $ab := 1$ $N_1 := 2.41935$

$N_2 := 5.16684$ $N_3 := 1.49689$

$$A := \frac{1}{N_1} \quad B := \frac{1}{N_2} \quad C := \frac{1}{N_3}$$

Descriptions.

$$ef := \frac{N_3}{N_3 + N_2} \quad bf := N_2 \cdot ef \quad bc := \frac{ef \cdot N_1}{N_1 - bf}$$

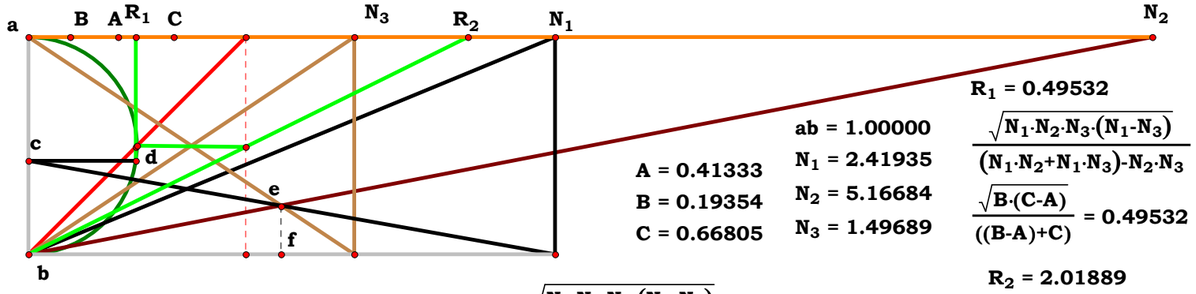
$$R_1 := \sqrt{bc \cdot (1 - bc)} \quad R_2 := \frac{1}{R_1} \quad R_1 = 0.495322$$

Definitions.

$$R_1 - \frac{\sqrt{N_1 \cdot N_2 \cdot N_3 \cdot (N_1 - N_3)}}{(N_1 \cdot N_2 + N_1 \cdot N_3 - N_2 \cdot N_3)} = 0$$

$$N_1 - \frac{1}{A} = 0 \quad N_2 - \frac{1}{B} = 0 \quad N_3 - \frac{1}{C} = 0$$

$$R_1 - \frac{\sqrt{B \cdot (C - A)}}{B - A + C} = 0 \quad R_2 - \frac{B - A + C}{\sqrt{B \cdot (C - A)}} = 0$$



A = 0.41333
B = 0.19354
C = 0.66805

ab = 1.00000
N_1 = 2.41935
N_2 = 5.16684
N_3 = 1.49689

R_1 = 0.49532

$$\frac{\sqrt{N_1 \cdot N_2 \cdot N_3 \cdot (N_1 - N_3)}}{(N_1 \cdot N_2 + N_1 \cdot N_3) - N_2 \cdot N_3} = 0.49532$$

$$\frac{\sqrt{B \cdot (C - A)}}{((B - A) + C)} = 0.49532$$

R_2 = 2.01889

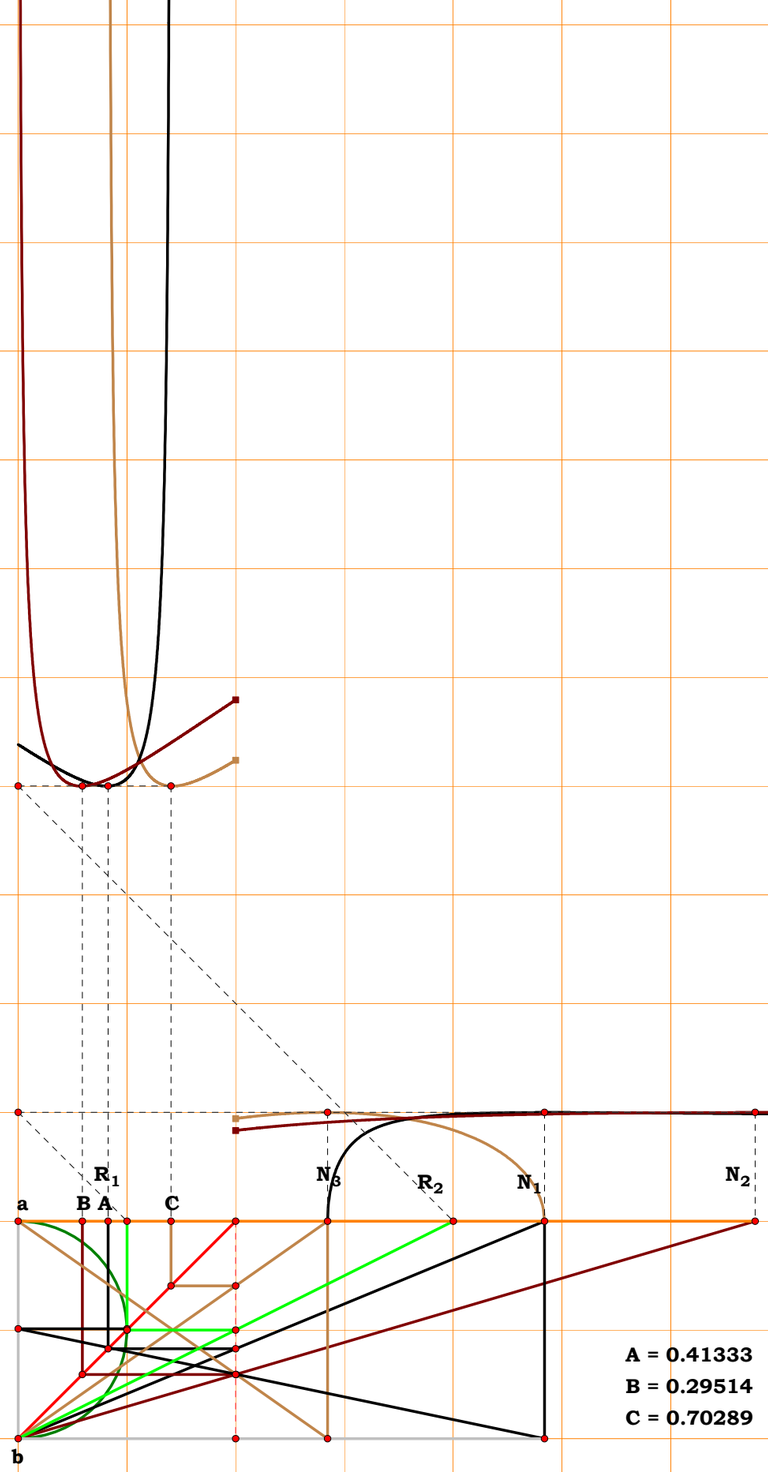
$$\frac{((B - A) + C)}{\sqrt{B \cdot (C - A)}} = 2.01889$$

$$R_2 - \frac{((B - A) + C)}{\sqrt{B \cdot (C - A)}} = 0.00000$$

$$R_1 - \frac{\sqrt{N_1 \cdot N_2 \cdot N_3 \cdot (N_1 - N_3)}}{(N_1 \cdot N_2 + N_1 \cdot N_3) - N_2 \cdot N_3} = 0.00000$$

$$R_1 - \frac{\sqrt{B \cdot (C - A)}}{((B - A) + C)} = 0.00000$$

$$\frac{\sqrt{B \cdot (C - A)}}{((B - A) + C)} - \frac{\sqrt{N_1 \cdot N_2 \cdot N_3 \cdot (N_1 - N_3)}}{(N_1 \cdot N_2 + N_1 \cdot N_3) - N_2 \cdot N_3} = 0.00000$$



$A = 0.41333$

$B = 0.29514$

$C = 0.70289$

$ab = 1.00000$

$N_1 = 2.41935$

$N_2 = 3.38820$

$N_3 = 1.42270$

$R_1 = 0.49998$

$$\frac{\sqrt{N_1 \cdot N_2 \cdot N_3 \cdot (N_1 - N_3)}}{(N_1 \cdot N_2 + N_1 \cdot N_3) - N_2 \cdot N_3} = 0.49998$$

$$\frac{\sqrt{B \cdot (C - A)}}{(B - A) + C} = 0.49998$$

$$R_1 - \frac{\sqrt{N_1 \cdot N_2 \cdot N_3 \cdot (N_1 - N_3)}}{(N_1 \cdot N_2 + N_1 \cdot N_3) - N_2 \cdot N_3} = 0.00000$$

$$R_1 - \frac{\sqrt{B \cdot (C - A)}}{(B - A) + C} = 0.00000$$

$$\frac{\sqrt{B \cdot (C - A)}}{(B - A) + C} - \frac{\sqrt{N_1 \cdot N_2 \cdot N_3 \cdot (N_1 - N_3)}}{(N_1 \cdot N_2 + N_1 \cdot N_3) - N_2 \cdot N_3} = 0.00000$$

$R_2 = 2.00009$

$$\frac{(B - A) + C}{\sqrt{B \cdot (C - A)}} = 2.00009$$

$$R_2 - \frac{(B - A) + C}{\sqrt{B \cdot (C - A)}} = 0.00000$$

2SMT8R2

Given.

Unit. $ab := 1$ $N_1 := 2.66682$

$N_2 := 1.95791$ $N_3 := 1.47202$

$A := \frac{1}{N_1}$ $B := \frac{1}{N_2}$ $C := \frac{1}{N_3}$

Descriptions.

$ef := \frac{N_3}{N_3 + N_2}$ $bf := N_2 \cdot ef$

$bc := \frac{ef \cdot N_1}{N_1 - bf}$ $cd := \sqrt{bc \cdot (1 - bc)}$

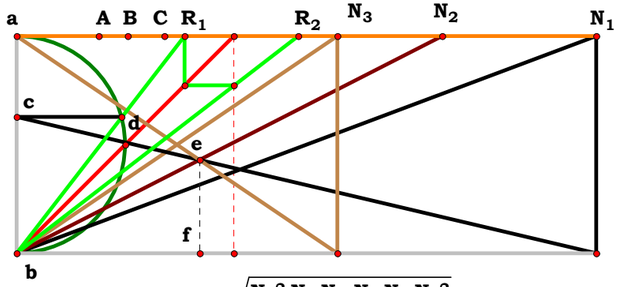
$R_1 := \frac{cd}{bc}$ $R_2 := \frac{1}{R_1}$ $R_1 = 0.771952$

Definitions.

$R_1 - \frac{\sqrt{\left(N_1^{\,2} \cdot N_2 \cdot N_3 - N_1 \cdot N_2 \cdot N_3^{\,2}\right)}}{N_1 \cdot N_3} = 0$

$N_1 - \frac{1}{A} = 0$ $N_2 - \frac{1}{B} = 0$ $N_3 - \frac{1}{C} = 0$

$R_1 - \frac{\sqrt{C - A}}{\sqrt{B}} = 0$ $R_2 - \frac{\sqrt{B}}{\sqrt{C - A}} = 0$



$A = 0.37498$ $B = 0.51075$ $C = 0.67934$

$R_1 = 0.77195$

$ab = 1.00000$ $N_1 = 2.66682$ $N_2 = 1.95791$ $N_3 = 1.47202$

$\frac{\sqrt{N_1^{\,2} \cdot N_2 \cdot N_3 - N_1 \cdot N_2 \cdot N_3^{\,2}}}{N_1 \cdot N_3} = 0.77195$

$\frac{\sqrt{C-A}}{\sqrt{B}} = 0.77195$

$R_1 - \frac{\sqrt{N_1^{\,2} \cdot N_2 \cdot N_3 - N_1 \cdot N_2 \cdot N_3^{\,2}}}{N_1 \cdot N_3} = 0.00000$

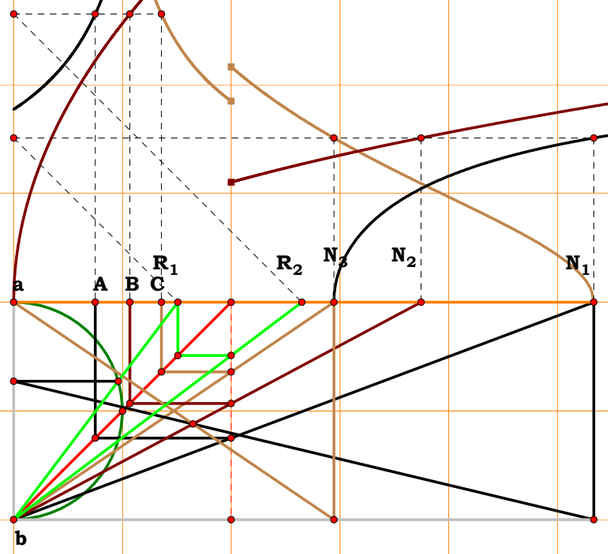
$R_1 - \frac{\sqrt{C-A}}{\sqrt{B}} = 0.00000$

$\frac{\sqrt{C-A}}{\sqrt{B}} - \frac{\sqrt{N_1^{\,2} \cdot N_2 \cdot N_3 - N_1 \cdot N_2 \cdot N_3^{\,2}}}{N_1 \cdot N_3} = 0.00000$

$R_2 = 1.29542$

$\frac{\sqrt{B}}{\sqrt{C-A}} = 1.29542$

$R_2 - \frac{\sqrt{B}}{\sqrt{C-A}} = 0.00000$



A = 0.37498
B = 0.53397
C = 0.67934

ab = 1.00000
N_1 = 2.66682
N_2 = 1.87276
N_3 = 1.47202

R_1 = 0.75498

$$\frac{\sqrt{N_1^2 \cdot N_2 \cdot N_3 - N_1 \cdot N_2 \cdot N_3^2}}{N_1 \cdot N_3} = 0.75498$$

$$\frac{\sqrt{C-A}}{\sqrt{B}} = 0.75498$$

$$R_1 - \frac{\sqrt{N_1^2 \cdot N_2 \cdot N_3 - N_1 \cdot N_2 \cdot N_3^2}}{N_1 \cdot N_3} = 0.00000$$

$$R_1 - \frac{\sqrt{C-A}}{\sqrt{B}} = 0.00000$$

$$\frac{\sqrt{C-A}}{\sqrt{B}} - \frac{\sqrt{N_1^2 \cdot N_2 \cdot N_3 - N_1 \cdot N_2 \cdot N_3^2}}{N_1 \cdot N_3} = 0.00000$$

R_2 = 1.32455

$$\frac{\sqrt{B}}{\sqrt{C-A}} = 1.32455$$

$$R_2 - \frac{\sqrt{B}}{\sqrt{C-A}} = 0.00000$$

2SMT8R4

Given.

Unit. $ab := 1$

$N_1 := 2.30837 \quad N_2 := 1.53764$

$N_3 := 3.10851 \quad N_4 := 1.86859$

$$A := \frac{1}{N_1} \quad B := \frac{1}{N_2} \quad C := \frac{1}{N_3} \quad D := \frac{1}{N_4}$$

Descriptions.

$$fg := \frac{N_4}{N_3 + N_4} \quad bg := fg \cdot N_3 \quad bc := \frac{fg \cdot N_1}{N_1 - bg}$$

$$bN_2 := \sqrt{1 + N_2^2} \quad bd := \frac{1}{bN_2} \quad de := \frac{bd}{bN_2}$$

$$be := N_2 \cdot de \quad R_1 := \frac{be \cdot bc}{bc - de} \quad R_2 := \frac{1}{R_1}$$

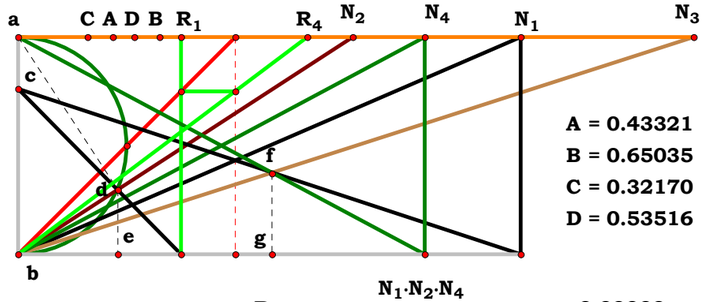
$$R_2 := \frac{1}{R_1} \quad R_1 = 0.75102$$

Definitions.

$$R_1 - \frac{N_1 \cdot N_2 \cdot N_4}{N_1 \cdot N_2^2 \cdot N_4 - N_1 \cdot N_3 + N_3 \cdot N_4} = 0$$

$$N_1 - \frac{1}{A} = 0 \quad N_2 - \frac{1}{B} = 0 \quad N_3 - \frac{1}{C} = 0 \quad N_4 - \frac{1}{D} = 0$$

$$R_1 - \frac{B \cdot C}{B^2 \cdot (A - D) + C} = 0 \quad R_2 - \frac{B^2 \cdot (A - D) + C}{B \cdot C} = 0$$



$A = 0.43321$
$B = 0.65035$
$C = 0.32170$
$D = 0.53516$

$ab = 1.00000$
$N_1 = 2.30837$
$N_2 = 1.53764$
$N_3 = 3.10851$
$N_4 = 1.86859$

$R_1 = 0.75101$

$$\frac{N_1 \cdot N_2 \cdot N_4}{(N_1 \cdot N_2^2 \cdot N_4 - N_1 \cdot N_3) + N_3 \cdot N_4} = 0.75101$$

$$\frac{(B \cdot C)}{(B^2 \cdot (A-D) + C)} = 0.75101$$

$$R_1 - \frac{N_1 \cdot N_2 \cdot N_4}{(N_1 \cdot N_2^2 \cdot N_4 - N_1 \cdot N_3) + N_3 \cdot N_4} = 0.00000$$

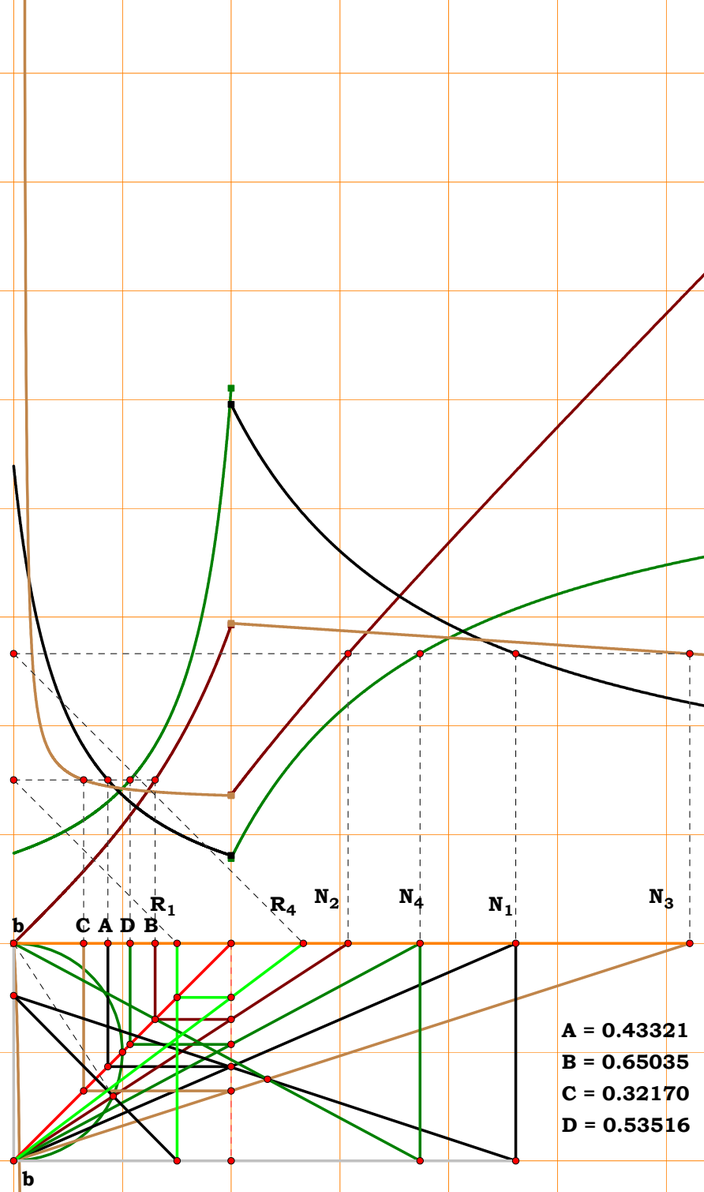
$$R_1 - \frac{(B \cdot C)}{(B^2 \cdot (A-D) + C)} = 0.00000$$

$$\frac{(B \cdot C)}{(B^2 \cdot (A-D) + C)} - \frac{N_1 \cdot N_2 \cdot N_4}{(N_1 \cdot N_2^2 \cdot N_4 - N_1 \cdot N_3) + N_3 \cdot N_4} = 0.00000$$

$R_4 = 1.33153$

$$\frac{(B^2 \cdot (A-D) + C)}{(B \cdot C)} = 1.33153$$

$$R_4 - \frac{(B^2 \cdot (A-D) + C)}{(B \cdot C)} = 0.00000$$



$ab = 1.00000$

$A = 0.43321$ $N_1 = 2.30837$

$B = 0.65035$ $N_2 = 1.53764$

$C = 0.32170$ $N_3 = 3.10851$

$D = 0.53516$ $N_4 = 1.86859$

$R_1 = 0.75101$

$$\frac{N_1 \cdot N_2 \cdot N_4}{(N_1 \cdot N_2^2 \cdot N_4 - N_1 \cdot N_3) + N_3 \cdot N_4} = 0.75101$$

$$\frac{(B \cdot C)}{(B^2 \cdot (A-D) + C)} = 0.75101$$

$$R_1 - \frac{N_1 \cdot N_2 \cdot N_4}{(N_1 \cdot N_2^2 \cdot N_4 - N_1 \cdot N_3) + N_3 \cdot N_4} = 0.00000$$

$$R_1 - \frac{(B \cdot C)}{(B^2 \cdot (A-D) + C)} = 0.00000$$

$$\frac{(B \cdot C)}{(B^2 \cdot (A-D) + C)} - \frac{N_1 \cdot N_2 \cdot N_4}{(N_1 \cdot N_2^2 \cdot N_4 - N_1 \cdot N_3) + N_3 \cdot N_4} = 0.00000$$

$R_4 = 1.33153$

$$\frac{(B^2 \cdot (A-D) + C)}{(B \cdot C)} = 1.33153$$

$$R_4 - \frac{(B^2 \cdot (A-D) + C)}{(B \cdot C)} = 0.00000$$

2SMT8R5

Given.

Unit. $ab := 1$ $N_1 := 2.11748$

$N_2 := 1.55346$ $N_3 := 3.45928$

$A := \frac{1}{N_1}$ $B := \frac{1}{N_2}$ $C := \frac{1}{N_3}$

Descriptions.

$be := \frac{N_2}{N_2 + N_3}$ $ef := \sqrt{be \cdot (1 - be)}$

$bc := \frac{be \cdot N_1}{N_1 - ef}$ $CD := \sqrt{bc \cdot (1 - bc)}$ $R_1 := \frac{CD}{bc}$

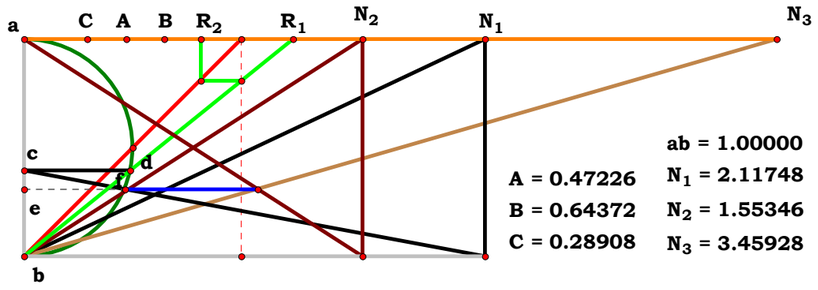
$R_2 := \frac{1}{R_1}$ $R_1 = 1.233731$

Definitions.

$R_1 - \frac{\sqrt{N_1 \cdot N_2 \cdot \left(N_1 \cdot N_3 - \sqrt{N_2 \cdot N_3}\right)}}{N_1 \cdot N_2} = 0$

$N_1 - \frac{1}{A} = 0$ $N_2 - \frac{1}{B} = 0$ $N_3 - \frac{1}{C} = 0$

$R_1 - \frac{B \cdot \sqrt{\left(\sqrt{B \cdot C} - A \cdot C\right)}}{(B \cdot C)^{\frac{3}{4}}} = 0$ $R_2 - \frac{(B \cdot C)^{\frac{3}{4}}}{B \cdot \sqrt{\left(\sqrt{B \cdot C} - A \cdot C\right)}} = 0$



$A = 0.47226$ $ab = 1.00000$ $R_1 = 1.23373$

$B = 0.64372$ $N_1 = 2.11748$ $\frac{\sqrt{N_1 \cdot N_2 \cdot \left(N_1 \cdot N_3 - \sqrt{N_2 \cdot N_3}\right)}}{N_1 \cdot N_2} = 1.23373$

$C = 0.28908$ $N_2 = 1.55346$ $\frac{\left(B \cdot \sqrt{\sqrt{B \cdot C} - A \cdot C}\right)}{(B \cdot C)^{\frac{3}{4}}} = 1.23373$

$N_3 = 3.45928$

$R_1 - \frac{\sqrt{N_1 \cdot N_2 \cdot \left(N_1 \cdot N_3 - \sqrt{N_2 \cdot N_3}\right)}}{N_1 \cdot N_2} = 0.00000$

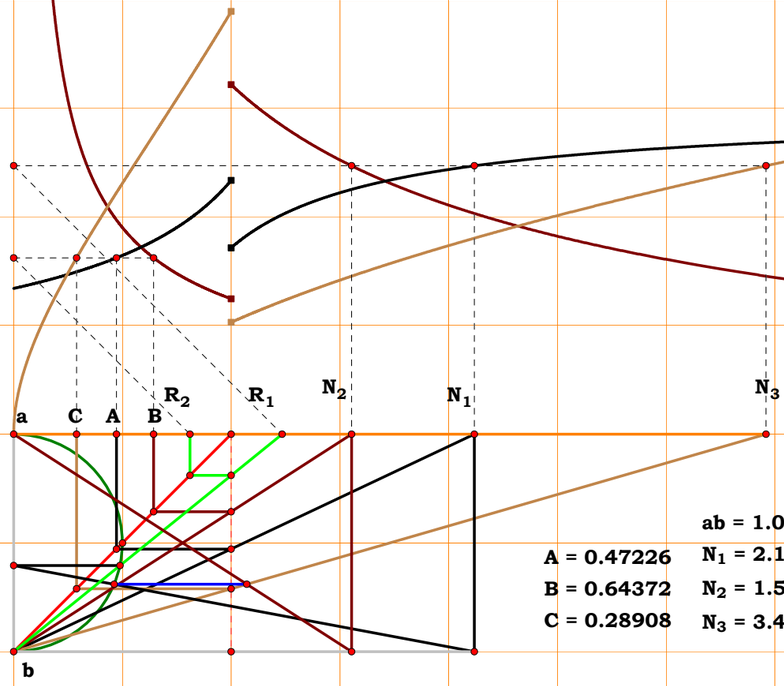
$R_1 - \frac{\left(B \cdot \sqrt{\sqrt{B \cdot C} - A \cdot C}\right)}{(B \cdot C)^{\frac{3}{4}}} = 0.00000$

$\frac{\left(B \cdot \sqrt{\sqrt{B \cdot C} - A \cdot C}\right)}{(B \cdot C)^{\frac{3}{4}}} - \frac{\sqrt{N_1 \cdot N_2 \cdot \left(N_1 \cdot N_3 - \sqrt{N_2 \cdot N_3}\right)}}{N_1 \cdot N_2} = 0.00000$

$R_2 = 0.81055$

$\frac{(B \cdot C)^{\frac{3}{4}}}{\left(B \cdot \sqrt{\sqrt{B \cdot C} - A \cdot C}\right)} = 0.81055$

$R_2 - \frac{(B \cdot C)^{\frac{3}{4}}}{\left(B \cdot \sqrt{\sqrt{B \cdot C} - A \cdot C}\right)} = 0.00000$



ab = 1.00000

A = 0.47226 N_1 = 2.11748

B = 0.64372 N_2 = 1.55346

C = 0.28908 N_3 = 3.45928

$R_1 = 1.23373$

$$\frac{\sqrt{N_1 \cdot N_2 \cdot (N_1 \cdot N_3 - \sqrt{N_2 \cdot N_3})}}{N_1 \cdot N_2} = 1.23373$$

$$\frac{(B \cdot \sqrt{\sqrt{B \cdot C} - A \cdot C})}{(B \cdot C)^{\frac{3}{4}}} = 1.23373$$

$$R_1 - \frac{\sqrt{N_1 \cdot N_2 \cdot (N_1 \cdot N_3 - \sqrt{N_2 \cdot N_3})}}{N_1 \cdot N_2} = 0.00000$$

$$R_1 - \frac{(B \cdot \sqrt{\sqrt{B \cdot C} - A \cdot C})}{(B \cdot C)^{\frac{3}{4}}} = 0.00000$$

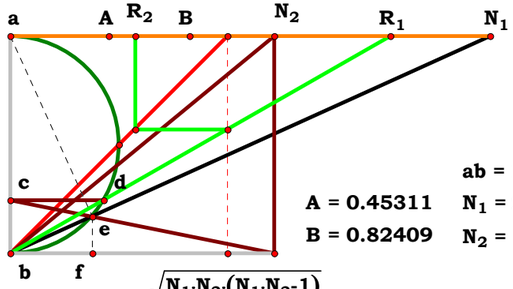
$$\frac{(B \cdot \sqrt{\sqrt{B \cdot C} - A \cdot C})}{(B \cdot C)^{\frac{3}{4}}} - \frac{\sqrt{N_1 \cdot N_2 \cdot (N_1 \cdot N_3 - \sqrt{N_2 \cdot N_3})}}{N_1 \cdot N_2} = 0.00000$$

$R_2 = 0.81055$

$$\frac{(B \cdot C)^{\frac{3}{4}}}{(B \cdot \sqrt{\sqrt{B \cdot C} - A \cdot C})} = 0.81055$$

$$R_2 - \frac{(B \cdot C)^{\frac{3}{4}}}{(B \cdot \sqrt{\sqrt{B \cdot C} - A \cdot C})} = 0.00000$$

2SMT8R6



ab = 1.00000
A = 0.45311
B = 0.82409
N1 = 2.20696
N2 = 1.21347

$R_1 = 1.74698$

$\frac{\sqrt{N_1 \cdot N_2 \cdot (N_1 \cdot N_2 - 1)}}{N_2} = 1.74698$

$\frac{\sqrt{1 - A \cdot B}}{A} = 1.74698$

$R_1 - \frac{\sqrt{N_1 \cdot N_2 \cdot (N_1 \cdot N_2 - 1)}}{N_2} = 0.00000$

$R_1 - \frac{\sqrt{1 - A \cdot B}}{A} = 0.00000$

$\frac{\sqrt{1 - A \cdot B}}{A} - \frac{\sqrt{N_1 \cdot N_2 \cdot (N_1 \cdot N_2 - 1)}}{N_2} = 0.00000$

$R_2 = 0.57242$

$\frac{A}{\sqrt{1 - A \cdot B}} = 0.57242$

$R_2 - \frac{A}{\sqrt{1 - A \cdot B}} = 0.00000$

Given.

Unit. $ab := 1$

$N_1 := 2.20696 \quad N_2 := 1.21347$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2}$

Descriptions.

$bN_1 := \sqrt{1 + N_1^2} \quad be := \frac{1}{bN_1} \quad ef := \frac{be}{bN_1}$

$bf := N_1 \cdot ef \quad bc := \frac{ef \cdot N_2}{N_2 - bf} \quad cd := \sqrt{bc \cdot (1 - bc)}$

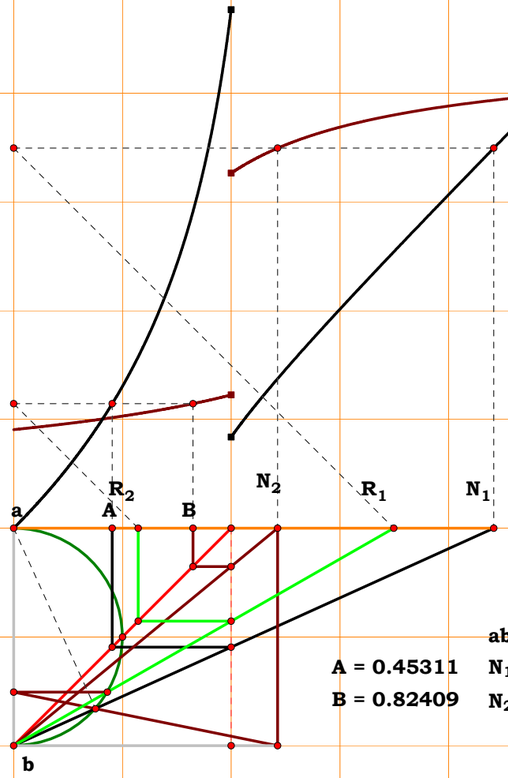
$R_1 := \frac{cd}{bc} \quad R_2 := \frac{1}{R_1} \quad R_1 = 1.746984$

Definitions.

$R_1 - \frac{\sqrt{N_1 \cdot N_2 \cdot (N_1 \cdot N_2 - 1)}}{N_2} = 0$

$N_1 - \frac{1}{A} = 0 \quad N_2 - \frac{1}{B} = 0$

$R_1 - \frac{\sqrt{1 - A \cdot B}}{A} = 0 \quad R_2 - \frac{A}{\sqrt{1 - A \cdot B}} = 0$



$ab = 1.00000$

$A = 0.45311$

$B = 0.82409$

$N_1 = 2.20696$

$N_2 = 1.21347$

$R_1 = 1.74698$

$$\frac{\sqrt{N_1 \cdot N_2 \cdot (N_1 \cdot N_2 - 1)}}{N_2} = 1.74698$$

$$\frac{\sqrt{1 - A \cdot B}}{A} = 1.74698$$

$$R_1 - \frac{\sqrt{N_1 \cdot N_2 \cdot (N_1 \cdot N_2 - 1)}}{N_2} = 0.00000$$

$$R_1 - \frac{\sqrt{1 - A \cdot B}}{A} = 0.00000$$

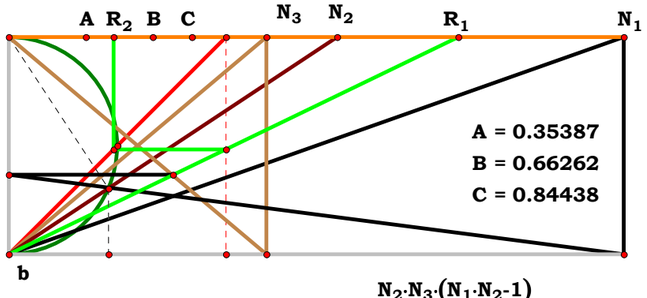
$$\frac{\sqrt{1 - A \cdot B}}{A} - \frac{\sqrt{N_1 \cdot N_2 \cdot (N_1 \cdot N_2 - 1)}}{N_2} = 0.00000$$

$R_2 = 0.57242$

$$\frac{A}{\sqrt{1 - A \cdot B}} = 0.57242$$

$$R_2 - \frac{A}{\sqrt{1 - A \cdot B}} = 0.00000$$

2SMT8R7



Given.

Unit. $ab := 1$ $N_1 := 2.82592$

$N_2 := 1.50916$ $N_3 := 1.18430$

$A := \frac{1}{N_1}$ $B := \frac{1}{N_2}$ $C := \frac{1}{N_3}$

Descriptions.

$bN_2 := \sqrt{1 + N_2^2}$ $bd := \frac{1}{bN_2}$ $de := \frac{bd}{bN_2}$

$be := N_2 \cdot de$ $bc := \frac{de \cdot N_1}{N_1 - be}$ $cf := N_3 \cdot (1 - bc)$

$R_1 := \frac{cf}{bc}$ $R_2 := \frac{1}{R_1}$ $R_1 = 2.064853$

Definitions.

$R_1 - \frac{N_2 \cdot N_3 \cdot (N_1 \cdot N_2 - 1)}{N_1} = 0$

$N_1 - \frac{1}{A} = 0$ $N_2 - \frac{1}{B} = 0$ $N_3 - \frac{1}{C} = 0$

$R_1 - \frac{1 - A \cdot B}{B^2 \cdot C} = 0$ $R_2 - \frac{B^2 \cdot C}{1 - A \cdot B} = 0$

$ab = 1.00000$

$N_1 = 2.82592$

$N_2 = 1.50916$

$N_3 = 1.18430$

$R_1 = 2.06485$

$\frac{N_2 \cdot N_3 \cdot (N_1 \cdot N_2 - 1)}{N_1} = 2.06485$

$\frac{(1 - A \cdot B)}{(B^2 \cdot C)} = 2.06485$

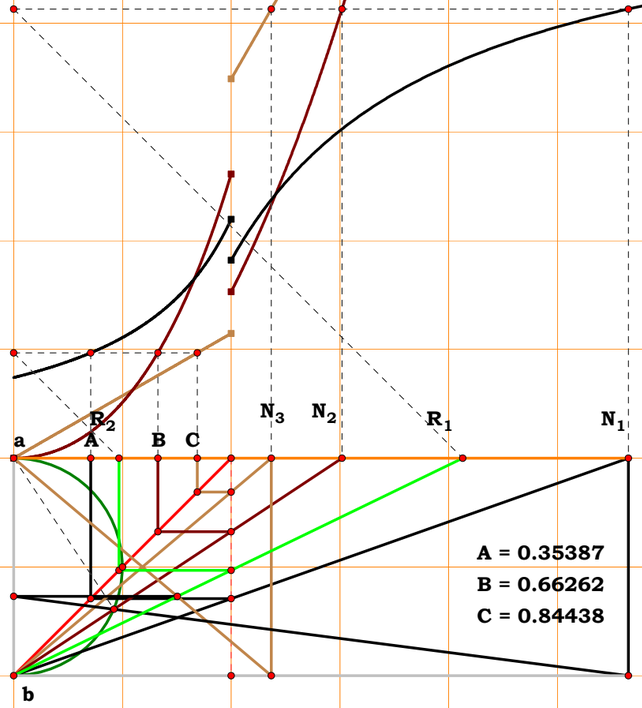
$R_1 - \frac{N_2 \cdot N_3 \cdot (N_1 \cdot N_2 - 1)}{N_1} = 0.00000$

$R_1 - \frac{(1 - A \cdot B)}{(B^2 \cdot C)} = 0.00000$

$\frac{(1 - A \cdot B)}{(B^2 \cdot C)} - \frac{N_2 \cdot N_3 \cdot (N_1 \cdot N_2 - 1)}{N_1} = 0.00000$

$R_2 = 0.48430$

$\frac{(B^2 \cdot C)}{(1 - A \cdot B)} = 0.48430$



A = 0.35387
B = 0.66262
C = 0.84438

ab = 1.00000
N_1 = 2.82592
N_2 = 1.50916
N_3 = 1.18430

$R_1 = 2.06485$

$$\frac{N_2 \cdot N_3 \cdot (N_1 \cdot N_2 - 1)}{N_1} = 2.06485$$

$$\frac{(1 - A \cdot B)}{(B^2 \cdot C)} = 2.06485$$

$$R_1 - \frac{N_2 \cdot N_3 \cdot (N_1 \cdot N_2 - 1)}{N_1} = 0.00000$$

$$R_1 - \frac{(1 - A \cdot B)}{(B^2 \cdot C)} = 0.00000$$

$$\frac{(1 - A \cdot B)}{(B^2 \cdot C)} - \frac{N_2 \cdot N_3 \cdot (N_1 \cdot N_2 - 1)}{N_1} = 0.00000$$

$R_2 = 0.48430$

$$\frac{(B^2 \cdot C)}{(1 - A \cdot B)} = 0.48430$$

2SMT8R8

Given.

Unit. $ab := 1$ $N_1 := 1.97415$

$N_2 := 1.32450$ $N_3 := 2.85011$

$A := \frac{1}{N_1}$ $B := \frac{1}{N_2}$ $C := \frac{1}{N_3}$

Descriptions.

$bc := \frac{N_3}{N_2 + N_3}$ $bN_1 := \sqrt{1 + N_1^2}$ $bd := \frac{1}{bN_1}$

$de := \frac{bd}{bN_1}$ $be := N_1 \cdot de$ $R_1 := \frac{be \cdot bc}{bc - de}$

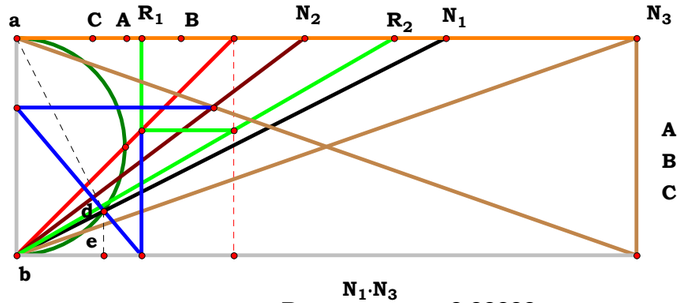
$R_2 := \frac{1}{R_1}$ $R_1 = 0.575126$

Definitions.

$R_1 - \frac{N_1 \cdot N_3}{N_1^2 \cdot N_3 - N_2} = 0$

$N_1 - \frac{1}{A} = 0$ $N_2 - \frac{1}{B} = 0$ $N_3 - \frac{1}{C} = 0$

$R_1 - \frac{A \cdot B}{B - A^2 \cdot C} = 0$ $R_2 - \frac{B - A^2 \cdot C}{A \cdot B} = 0$



$A = 0.50655$
$B = 0.75500$
$C = 0.35086$

$ab = 1.00000$
$N_1 = 1.97415$
$N_2 = 1.32450$
$N_3 = 2.85011$

$R_1 = 0.57513$

$\frac{N_1 \cdot N_3}{N_1^2 \cdot N_3 - N_2} = 0.57513$

$\frac{(A \cdot B)}{(B - A^2 \cdot C)} = 0.57513$

$R_1 - \frac{N_1 \cdot N_3}{N_1^2 \cdot N_3 - N_2} = 0.00000$

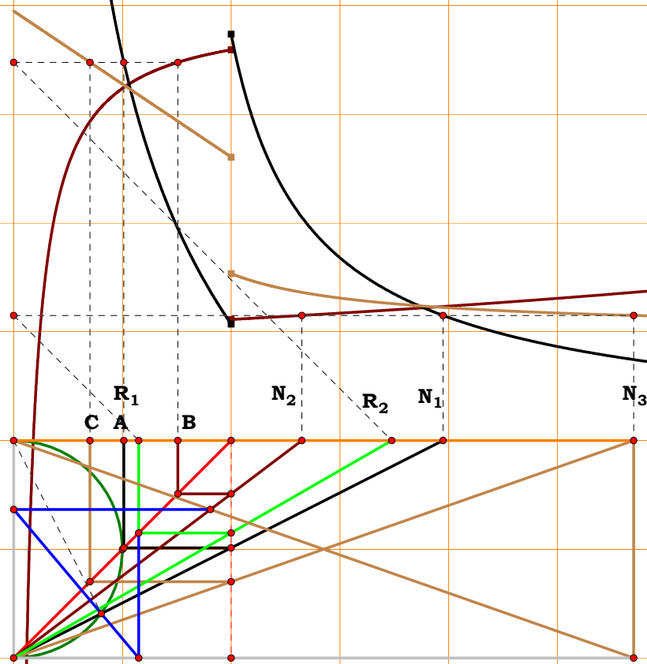
$R_1 - \frac{(A \cdot B)}{(B - A^2 \cdot C)} = 0.00000$

$\frac{(A \cdot B)}{(B - A^2 \cdot C)} - \frac{N_1 \cdot N_3}{N_1^2 \cdot N_3 - N_2} = 0.00000$

$R_2 = 1.73875$

$\frac{(B - A^2 \cdot C)}{(A \cdot B)} = 1.73875$

$R_2 - \frac{(B - A^2 \cdot C)}{(A \cdot B)} = 0.00000$



A = 0.50655
B = 0.75500
C = 0.35086

ab = 1.00000
N_1 = 1.97415
N_2 = 1.32450
N_3 = 2.85011

R_1 = 0.57513

$$\frac{N_1 \cdot N_3}{N_1^2 \cdot N_3 - N_2} = 0.57513$$

$$\frac{(A \cdot B)}{(B - A^2 \cdot C)} = 0.57513$$

$$R_1 - \frac{N_1 \cdot N_3}{N_1^2 \cdot N_3 - N_2} = 0.00000$$

$$R_1 - \frac{(A \cdot B)}{(B - A^2 \cdot C)} = 0.00000$$

$$\frac{(A \cdot B)}{(B - A^2 \cdot C)} - \frac{N_1 \cdot N_3}{N_1^2 \cdot N_3 - N_2} = 0.00000$$

R_2 = 1.73875

$$\frac{(B - A^2 \cdot C)}{(A \cdot B)} = 1.73875$$

$$R_2 - \frac{(B - A^2 \cdot C)}{(A \cdot B)} = 0.00000$$

2SMT8R9

Given.

Unit. $ab := 1$ $N_1 := 1.60800$

$N_2 := 2.13820$ $N_3 := 1.22527$

$A := \frac{1}{N_1}$ $B := \frac{1}{N_2}$ $C := \frac{1}{N_3}$

Descriptions.

$bN_1 := \sqrt{1 + N_1^2}$ $bd := \frac{1}{bN_1}$ $de := \frac{bd}{bN_1}$

$be := N_1 \cdot de$ $bc := \frac{de \cdot N_2}{N_2 - be}$ $R_1 := \frac{N_3}{bc}$

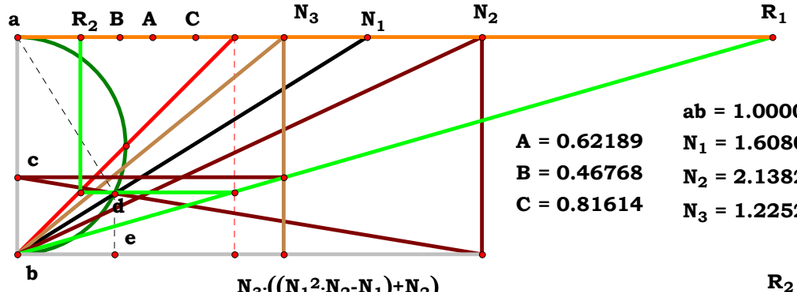
$R_2 := \frac{1}{R_1}$ $R_1 = 3.471961$

Definitions.

$$R_1 - \frac{N_3 \cdot \left(N_1^2 \cdot N_2 - N_1 + N_2\right)}{N_2} = 0$$

$N_1 - \frac{1}{A} = 0$ $N_2 - \frac{1}{B} = 0$ $N_3 - \frac{1}{C} = 0$

$R_1 - \frac{\left(A^2 - B \cdot A + 1\right)}{A^2 \cdot C} = 0$ $R_2 - \frac{A^2 \cdot C}{\left(A^2 - B \cdot A + 1\right)} = 0$



$A = 0.62189$
$B = 0.46768$
$C = 0.81614$

$ab = 1.00000$
$N_1 = 1.60800$
$N_2 = 2.13820$
$N_3 = 1.22527$

$R_1 = 3.47198$

$\frac{N_3 \cdot \left((N_1^2 \cdot N_2 - N_1) + N_2\right)}{N_2} = 3.47198$

$\frac{((A^2 - A \cdot B) + 1)}{(A^2 \cdot C)} = 3.47198$

$R_1 - \frac{N_3 \cdot \left((N_1^2 \cdot N_2 - N_1) + N_2\right)}{N_2} = 0.00000$

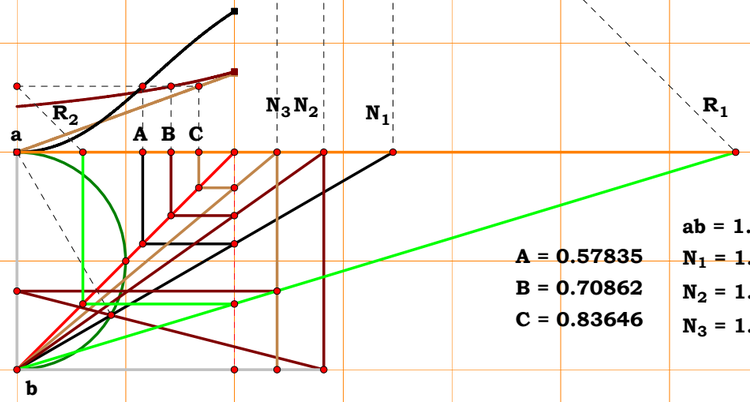
$R_1 - \frac{((A^2 - A \cdot B) + 1)}{(A^2 \cdot C)} = 0.00000$

$\frac{((A^2 - A \cdot B) + 1)}{(A^2 \cdot C)} - \frac{N_3 \cdot \left((N_1^2 \cdot N_2 - N_1) + N_2\right)}{N_2} = 0.00000$

$R_2 = 0.28802$

$\frac{(A^2 \cdot C)}{((A^2 - A \cdot B) + 1)} = 0.28802$

$R_2 - \frac{(A^2 \cdot C)}{((A^2 - A \cdot B) + 1)} = 0.00000$



$A = 0.57835$
$B = 0.70862$
$C = 0.83646$

$ab = 1.00000$
$N_1 = 1.72906$
$N_2 = 1.41119$
$N_3 = 1.19551$

$R_1 = 3.30488$

$$\frac{N_3\cdot((N_1^2\cdot N_2-N_1)+N_2)}{N_2} = 3.30488$$

$$\frac{((A^2-A\cdot B)+1)}{(A^2\cdot C)} = 3.30488$$

$$R_1-\frac{N_3\cdot((N_1^2\cdot N_2-N_1)+N_2)}{N_2} = 0.00000$$

$$R_1-\frac{((A^2-A\cdot B)+1)}{(A^2\cdot C)} = 0.00000$$

$$\frac{((A^2-A\cdot B)+1)}{(A^2\cdot C)}-\frac{N_3\cdot((N_1^2\cdot N_2-N_1)+N_2)}{N_2} = 0.00000$$

$R_2 = 0.30258$

$$\frac{(A^2\cdot C)}{((A^2-A\cdot B)+1)} = 0.30258$$

$$R_2-\frac{(A^2\cdot C)}{((A^2-A\cdot B)+1)} = 0.00000$$

2SMT8R10

Given.

Unit. $ab := 1$ $N_1 := 2.53265$

$N_2 := 2.04839$ $N_3 := 3.32978$

$A := \frac{1}{N_1}$ $B := \frac{1}{N_2}$ $C := \frac{1}{N_3}$

Descriptions.

$bN_1 := \sqrt{1 + N_1^2}$ $be := \frac{1}{bN_1}$ $ef := \frac{be}{bN_1}$

$bh := N_2 \cdot (1 - ef)$ $bc := \frac{ef \cdot N_3}{N_3 - bh}$ $cd := \sqrt{bc \cdot (1 - bc)}$

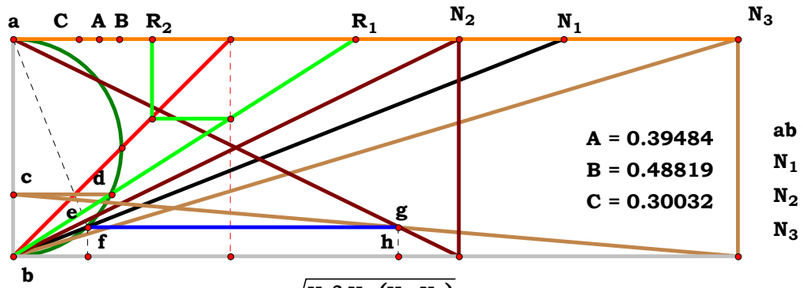
$R_1 := \frac{cd}{bc}$ $R_2 := \frac{1}{R_1}$ $R_1 = 1.571115$

Definitions.

$$R_1 - \frac{\sqrt{N_1^2 \cdot N_3 \cdot (N_3 - N_2)}}{N_3} = 0$$

$N_1 - \frac{1}{A} = 0$ $N_2 - \frac{1}{B} = 0$ $N_3 - \frac{1}{C} = 0$

$R_1 - \frac{\sqrt{B - C}}{A \cdot \sqrt{B}} = 0$ $R_2 - \frac{A \cdot \sqrt{B}}{\sqrt{B - C}} = 0$



ab = 1.00000

$N_1 = 2.53265$

$N_2 = 2.04839$

$N_3 = 3.32978$

$R_1 = 1.57112$

$\frac{\sqrt{N_1^2 \cdot N_3 \cdot (N_3 - N_2)}}{N_3} = 1.57112$

$\frac{\sqrt{B-C}}{(A \cdot \sqrt{B})} = 1.57112$

$R_1 - \frac{\sqrt{N_1^2 \cdot N_3 \cdot (N_3 - N_2)}}{N_3} = 0.00000$

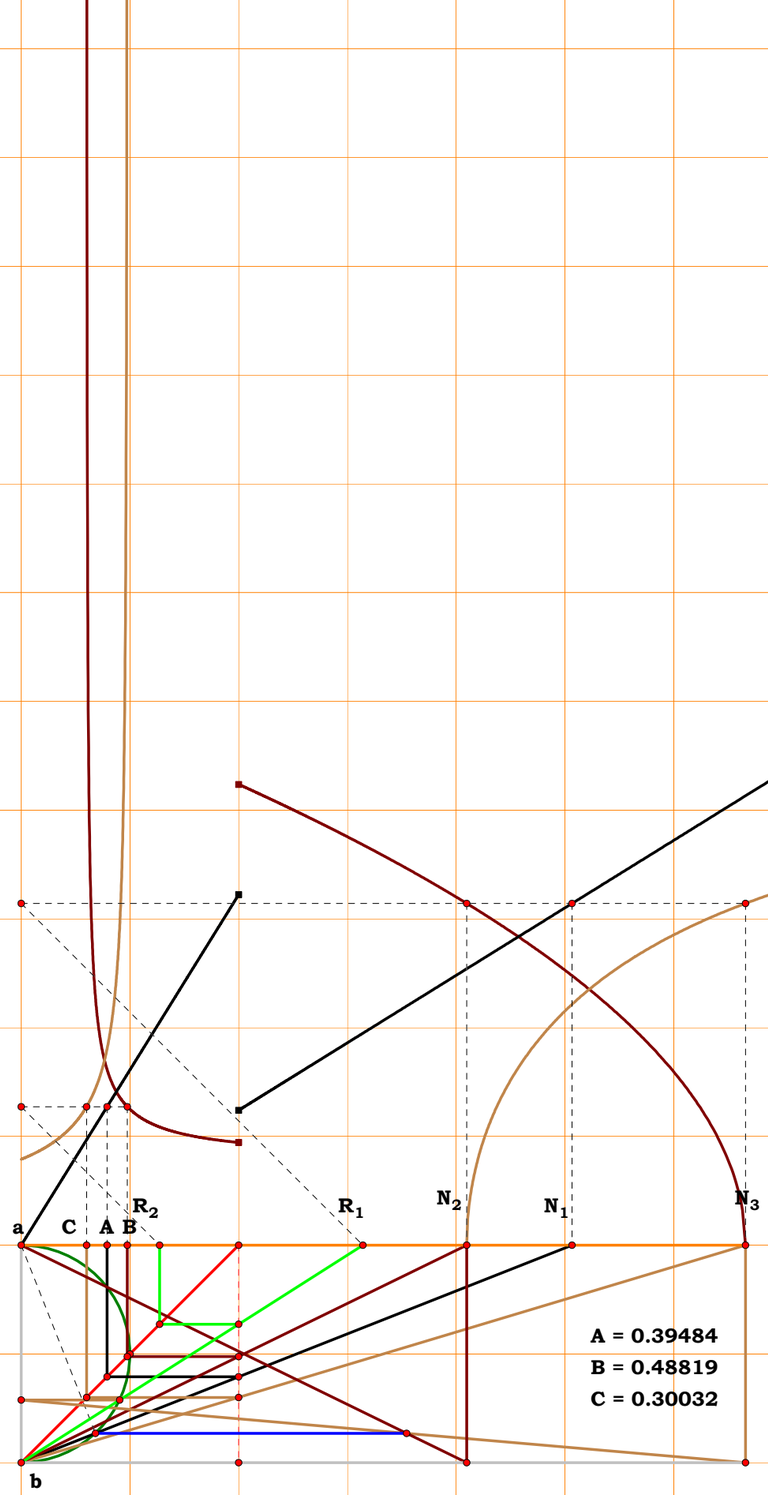
$R_1 - \frac{\sqrt{B-C}}{(A \cdot \sqrt{B})} = 0.00000$

$\frac{\sqrt{B-C}}{(A \cdot \sqrt{B})} - \frac{\sqrt{N_1^2 \cdot N_3 \cdot (N_3 - N_2)}}{N_3} = 0.00000$

$R_2 = 0.63649$

$\frac{(A \cdot \sqrt{B})}{\sqrt{B-C}} = 0.63649$

$R_2 - \frac{(A \cdot \sqrt{B})}{\sqrt{B-C}} = 0.00000$



A = 0.39484
B = 0.48819
C = 0.30032

ab = 1.00000
N_1 = 2.53265
N_2 = 2.04839
N_3 = 3.32978

R_1 = 1.57112

$$\frac{\sqrt{N_1^2 \cdot N_3 \cdot (N_3 - N_2)}}{N_3} = 1.57112$$

$$\frac{\sqrt{B-C}}{(A \cdot \sqrt{B})} = 1.57112$$

$$R_1 - \frac{\sqrt{N_1^2 \cdot N_3 \cdot (N_3 - N_2)}}{N_3} = 0.00000$$

$$R_1 - \frac{\sqrt{B-C}}{(A \cdot \sqrt{B})} = 0.00000$$

$$\frac{\sqrt{B-C}}{(A \cdot \sqrt{B})} - \frac{\sqrt{N_1^2 \cdot N_3 \cdot (N_3 - N_2)}}{N_3} = 0.00000$$

R_2 = 0.63649

$$\frac{(A \cdot \sqrt{B})}{\sqrt{B-C}} = 0.63649$$

$$R_2 - \frac{(A \cdot \sqrt{B})}{\sqrt{B-C}} = 0.00000$$

2SMT8R11

Given.

Unit. $ab := 1$

$N_1 := 1.46157 \quad N_2 := 1.28118$

$N_3 := 1.95836 \quad N_4 := 3.18804$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2} \quad C := \frac{1}{N_3} \quad D := \frac{1}{N_4}$

Descriptions.

$bN_1 := \sqrt{1 + N_1^2} \quad bd := \frac{1}{bN_1} \quad de := \frac{bd}{bN_1}$

$BE := N_1 \cdot de \quad bg := N_2 \cdot (1 - de) \quad bc := \frac{de \cdot N_3}{N_3 - bg}$

$ch := N_4 \cdot (1 - bc) \quad R_1 := \frac{ch}{bc} \quad R_2 := \frac{1}{R_1}$

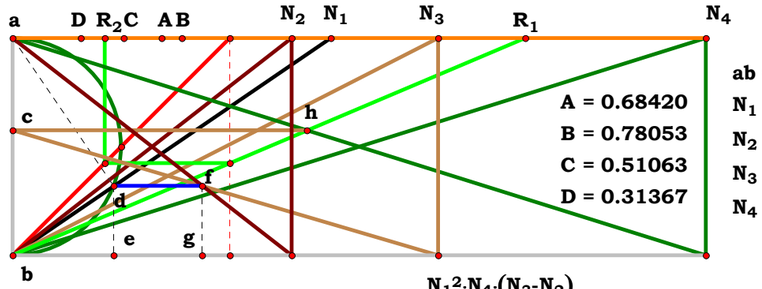
$R_1 = 2.354912$

Definitions.

$R_1 - \frac{N_1^2 \cdot N_4 \cdot (N_3 - N_2)}{N_3} = 0$

$N_1 - \frac{1}{A} = 0 \quad N_2 - \frac{1}{B} = 0 \quad N_3 - \frac{1}{C} = 0 \quad N_4 - \frac{1}{D} = 0$

$R_1 - \frac{(B - C)}{A^2 \cdot B \cdot D} = 0 \quad R_2 - \frac{A^2 \cdot B \cdot D}{B} = 0.277807$



ab = 1.00000
N_1 = 1.46157
N_2 = 1.28118
N_3 = 1.95836
N_4 = 3.18804

$R_1 = 2.35490$

$\frac{N_1^2 \cdot N_4 \cdot (N_3 - N_2)}{N_3} = 2.35490$

$\frac{(B-C)}{(A^2 \cdot B \cdot D)} = 2.35490$

$R_1 - \frac{N_1^2 \cdot N_4 \cdot (N_3 - N_2)}{N_3} = 0.00000$

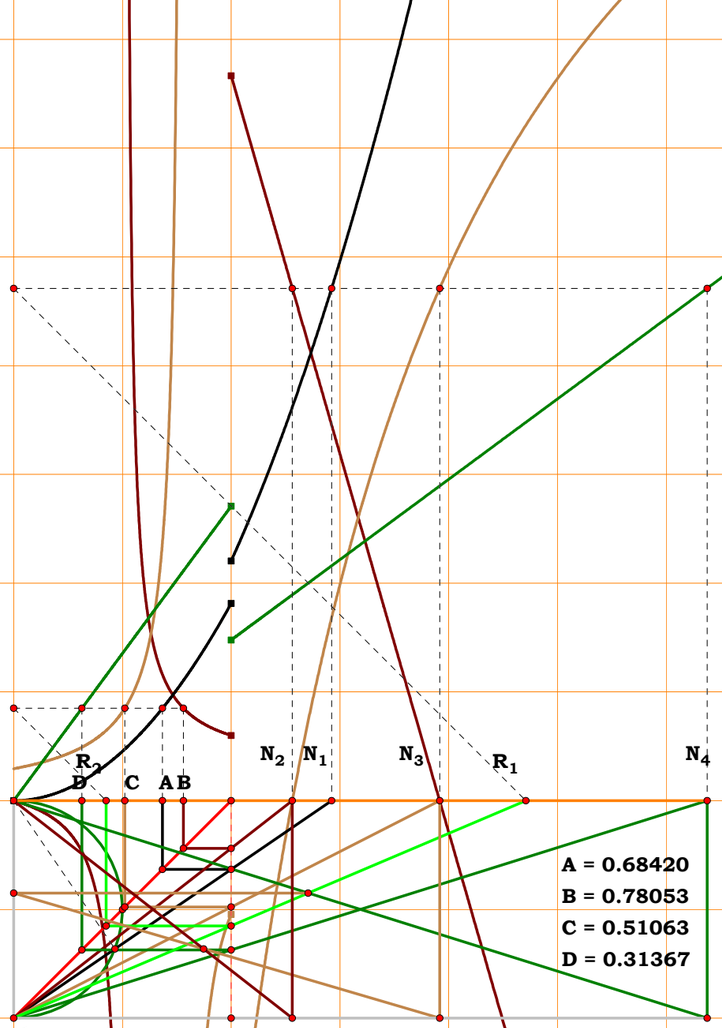
$R_1 - \frac{(B-C)}{(A^2 \cdot B \cdot D)} = 0.00000$

$\frac{(B-C)}{(A^2 \cdot B \cdot D)} - \frac{N_1^2 \cdot N_4 \cdot (N_3 - N_2)}{N_3} = 0.00000$

$R_2 = 0.42465$

$\frac{(A^2 \cdot B \cdot D)}{(B-C)} = 0.42465$

$R_2 - \frac{(A^2 \cdot B \cdot D)}{(B-C)} = 0.00000$



A = 0.68420
B = 0.78053
C = 0.51063
D = 0.31367

ab = 1.00000
N_1 = 1.46157
N_2 = 1.28118
N_3 = 1.95836
N_4 = 3.18804

R_1 = 2.35490

$$\frac{N_1^2 \cdot N_4 \cdot (N_3 - N_2)}{N_3} = 2.35490$$

$$\frac{(B-C)}{(A^2 \cdot B \cdot D)} = 2.35490$$

$$R_1 - \frac{N_1^2 \cdot N_4 \cdot (N_3 - N_2)}{N_3} = 0.00000$$

$$R_1 - \frac{(B-C)}{(A^2 \cdot B \cdot D)} = 0.00000$$

$$\frac{(B-C)}{(A^2 \cdot B \cdot D)} - \frac{N_1^2 \cdot N_4 \cdot (N_3 - N_2)}{N_3} = 0.00000$$

R_2 = 0.42465

$$\frac{(A^2 \cdot B \cdot D)}{(B-C)} = 0.42465$$

$$R_2 - \frac{(A^2 \cdot B \cdot D)}{(B-C)} = 0.00000$$

2SMT8R12

Given.

Unit. $ab := 1$

$N_1 := 1.77632 \quad N_2 := 2.37270$

$N_3 := 3.38824 \quad N_4 := 1.47534$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2} \quad C := \frac{1}{N_3} \quad D := \frac{1}{N_4}$

Descriptions.

$bN_1 := \sqrt{1 + N_1^2} \quad be := \frac{1}{bN_1} \quad bd := \frac{be}{bN_1}$

$bh := N_2 \cdot (1 - bd) \quad bc := \frac{bd \cdot N_3}{N_3 - bh}$

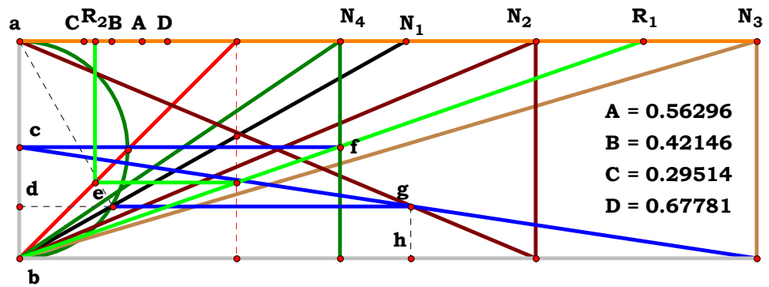
$R_1 := \frac{N_4}{bc} \quad R_2 := \frac{1}{R_1} \quad R_1 = 2.870607$

Definitions.

$R_1 - \frac{N_4 \cdot \left[N_3 - N_1^2 \cdot (N_2 - N_3)\right]}{N_3} = 0$

$N_1 - \frac{1}{A} = 0 \quad N_2 - \frac{1}{B} = 0 \quad N_3 - \frac{1}{C} = 0 \quad N_4 - \frac{1}{D} = 0$

$R_1 - \frac{(B - C) + A^2 \cdot B}{A^2 \cdot B \cdot D} = 0 \quad R_2 - \frac{A^2 \cdot B \cdot D}{(B - C) + A^2 \cdot B} = 0$



$R_1 - \frac{N_4 \cdot (N_3 - N_1^2 \cdot (N_2 - N_3))}{N_3} = 0.00000$

$R_1 - \frac{((B-C) + A^2 \cdot B)}{(A^2 \cdot B \cdot D)} = 0.00000$

$\frac{((B-C) + A^2 \cdot B)}{(A^2 \cdot B \cdot D)} - \frac{N_4 \cdot (N_3 - N_1^2 \cdot (N_2 - N_3))}{N_3} = 0.00000$

$ab = 1.00000$
$N_1 = 1.77632$
$N_2 = 2.37270$
$N_3 = 3.38824$
$N_4 = 1.47534$

$R_1 = 2.87062$

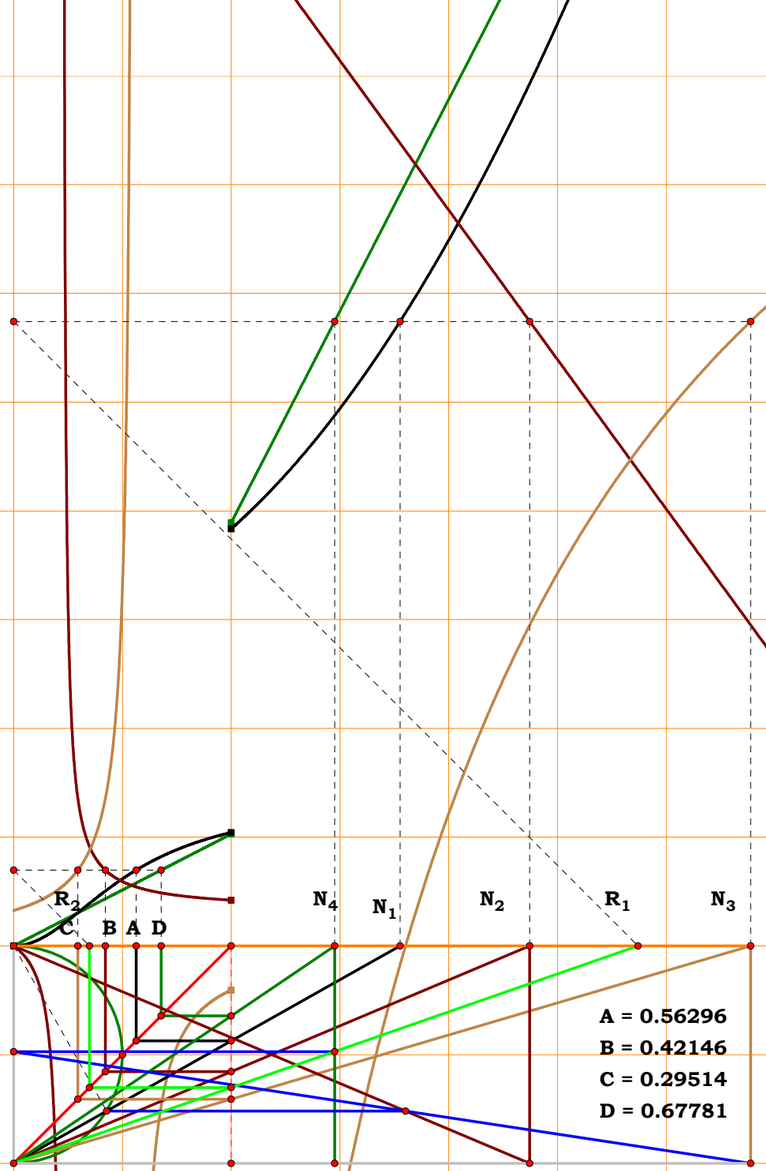
$\frac{N_4 \cdot (N_3 - N_1^2 \cdot (N_2 - N_3))}{N_3} = 2.87062$

$\frac{((B-C) + A^2 \cdot B)}{(A^2 \cdot B \cdot D)} = 2.87062$

$R_2 = 0.34836$

$\frac{(A^2 \cdot B \cdot D)}{((B-C) + A^2 \cdot B)} = 0.34836$

$R_2 - \frac{(A^2 \cdot B \cdot D)}{((B-C) + A^2 \cdot B)} = 0.00000$



A = 0.56296
B = 0.42146
C = 0.29514
D = 0.67781

ab = 1.00000
N_1 = 1.77632
N_2 = 2.37270
N_3 = 3.38824
N_4 = 1.47534

R_1 = 2.87062

$$\frac{N_4\cdot(N_3-N_1^2\cdot(N_2-N_3))}{N_3} = 2.87062$$

$$\frac{((B-C)+A^2\cdot B)}{(A^2\cdot B\cdot D)} = 2.87062$$

$$R_1-\frac{N_4\cdot(N_3-N_1^2\cdot(N_2-N_3))}{N_3} = 0.00000$$

$$R_1-\frac{((B-C)+A^2\cdot B)}{(A^2\cdot B\cdot D)} = 0.00000$$

$$\frac{((B-C)+A^2\cdot B)}{(A^2\cdot B\cdot D)}-\frac{N_4\cdot(N_3-N_1^2\cdot(N_2-N_3))}{N_3} = 0.00000$$

R_2 = 0.34836

$$\frac{(A^2\cdot B\cdot D)}{((B-C)+A^2\cdot B)} = 0.34836$$

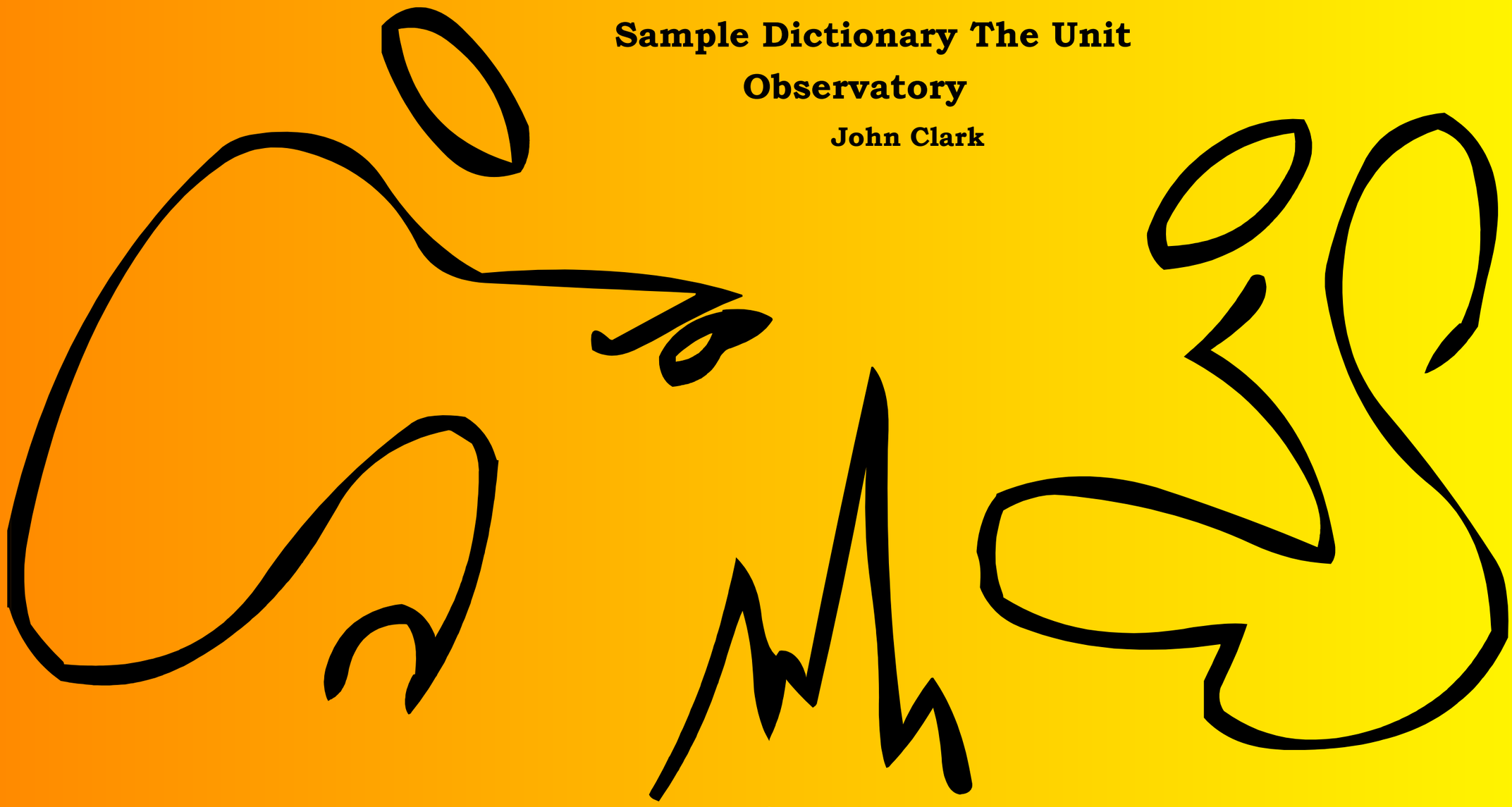
$$R_2-\frac{(A^2\cdot B\cdot D)}{((B-C)+A^2\cdot B)} = 0.00000$$

Basic Analog Grammar

Sample Dictionary The Unit

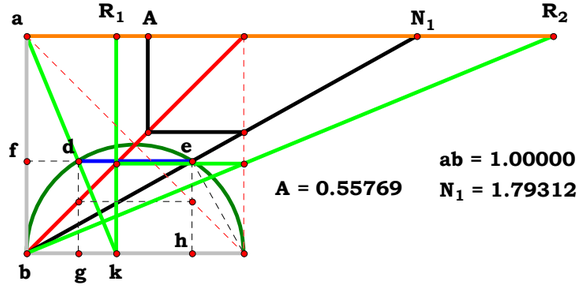
Observatory

John Clark



John 312

3OBT1R0



$ab = 1.00000$

$N_1 = 1.79312$

$A = 0.55769$

$R_1 = 0.41286$

$\frac{1}{(N_1^2-N_1)+1} = 0.41286$

$\frac{A^2}{(A^2-A)+1} = 0.41286$

$R_2 = 2.42216$

$\frac{(A^2-A)+1}{A^2} = 2.42216$

$R_2 - \frac{(A^2-A)+1}{A^2} = 0.00000$

Given.

Unit. $ab := 1$

$N_1 := 1.79312$

$A := \frac{1}{N_1}$

Descriptions.

$bn := \sqrt{N_1^2 + 1}$ $\quad be := \frac{N_1}{bn}$ $\quad eh := \frac{be}{bn}$

$ce := \frac{1}{bn}$ $\quad ch := \sqrt{ce^2 - eh^2}$ $\quad bg := ch$

$R_1 := \frac{bg}{1 - eh}$ $\quad R_2 := \frac{1}{R_1}$ $\quad R_1 = 0.412855$

$R_1 - \frac{1}{(N_1^2-N_1)+1} = 0.00000$

$R_1 - \frac{A^2}{(A^2-A)+1} = 0.00000$

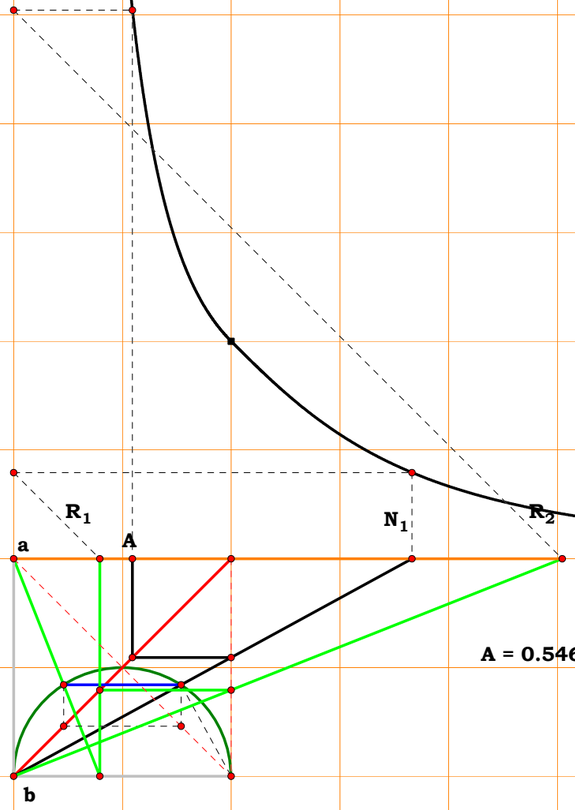
$\frac{A^2}{(A^2-A)+1} - \frac{1}{(N_1^2-N_1)+1} = 0.00000$

Definitions.

$R_1 - \frac{1}{N_1^2 - N_1 + 1} = 0$

$N_1 - \frac{1}{A} = 0$

$R_1 - \frac{A^2}{A^2 - A + 1} = 0$ $\quad R_2 - \frac{A^2 - A + 1}{A^2} = 0$



$A = 0.54608$

$ab = 1.00000$

$N_1 = 1.83125$

$R_1 = 0.39648$

$\frac{1}{(N_1^2-N_1)+1} = 0.39648$

$\frac{A^2}{(A^2-A)+1} = 0.39648$

$R_1 - \frac{1}{(N_1^2-N_1)+1} = 0.00000$

$R_1 - \frac{A^2}{(A^2-A)+1} = 0.00000$

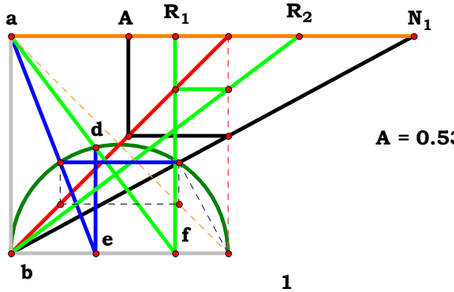
$\frac{A^2}{(A^2-A)+1} - \frac{1}{(N_1^2-N_1)+1} = 0.00000$

$R_2 = 2.52222$

$\frac{(A^2-A)+1}{A^2} = 2.52222$

$R_2 - \frac{(A^2-A)+1}{A^2} = 0.00000$

3OBT1R1



A = 0.53944 ab = 1.00000 N1 = 1.85377

Given.

Unit. $ab := 1$

$N_1 := 1.85377$

$A := \frac{1}{N_1}$

Descriptions.

$be := \frac{1}{N_1^2 - \left(\sqrt{N_1^2}\right) + 1}$ $ce := 1 - be$

$de := \sqrt{be \cdot ce}$ $bf := \frac{be}{1 - de}$ $R_1 := bf$

$R_2 := \frac{1}{R_1}$ $R_1 = 0.754921$

Definitions.

$R_1 - \frac{1}{\left(N_1^2 - N_1 - \sqrt{N_1^2 - N_1} + 1\right)} = 0$

$N_1 - \frac{1}{A} = 0$

$R_1 - \frac{A^2}{A^2 - A - A \cdot \sqrt{1 - A} + 1} = 0$

$R_1 - \frac{1}{(N_1^2 - N_1 - \sqrt{N_1^2 - N_1}) + 1} = 0.00000$

$R_1 - \frac{A^2}{(A^2 - A - A \cdot \sqrt{1 - A}) + 1} = 0.00000$

$\frac{A^2}{(A^2 - A - A \cdot \sqrt{1 - A}) + 1} - \frac{1}{(N_1^2 - N_1 - \sqrt{N_1^2 - N_1}) + 1} = 0.00000$

$R_1 = 0.75493$

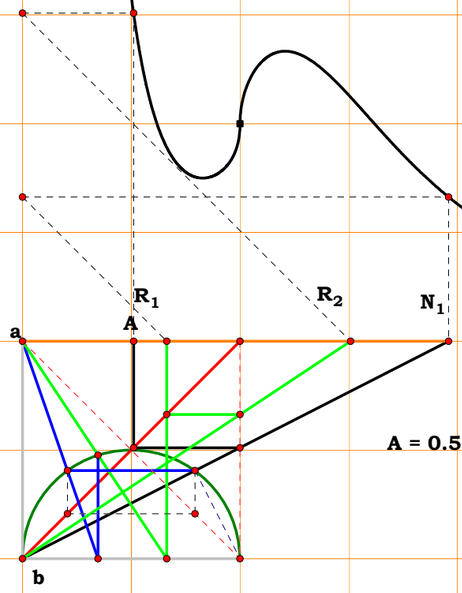
$\frac{1}{(N_1^2 - N_1 - \sqrt{N_1^2 - N_1}) + 1} = 0.75493$

$\frac{A^2}{(A^2 - A - A \cdot \sqrt{1 - A}) + 1} = 0.75493$

$R_2 = 1.32463$

$\frac{(A^2 - A - A \cdot \sqrt{1 - A}) + 1}{A^2} = 1.32463$

$R_2 - \frac{(A^2 - A - A \cdot \sqrt{1 - A}) + 1}{A^2} = 0.00000$



A = 0.51041

ab = 1.00000

$N_1 = 1.95919$

$R_1 = 0.66296$

$$\frac{1}{(N_1^2-N_1-\sqrt{N_1^2-N_1})+1} = 0.66296$$

$$\frac{A^2}{(A^2-A-A\cdot\sqrt{1-A})+1} = 0.66296$$

$$R_1-\frac{1}{(N_1^2-N_1-\sqrt{N_1^2-N_1})+1} = 0.00000$$

$$R_1-\frac{A^2}{(A^2-A-A\cdot\sqrt{1-A})+1} = 0.00000$$

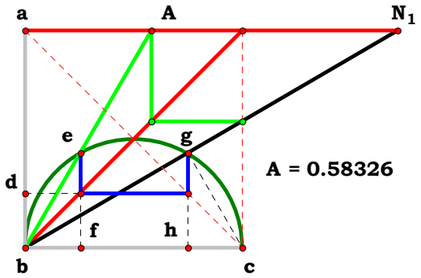
$$\frac{A^2}{(A^2-A-A\cdot\sqrt{1-A})+1}-\frac{1}{(N_1^2-N_1-\sqrt{N_1^2-N_1})+1} = 0.00000$$

$R_2 = 1.50839$

$$\frac{(A^2-A-A\cdot\sqrt{1-A})+1}{A^2} = 1.50839$$

$$R_2-\frac{(A^2-A-A\cdot\sqrt{1-A})+1}{A^2} = 0.00000$$

3OBT1R2



A = 0.58326

ab = 1.00000

N_1 = 1.71451

$\frac{1}{N_1} = 0.58326$

$\frac{1}{A} = 1.71451$

Given.

Unit. $ab := 1$

$N_1 := 1.71451$

$A := \frac{1}{N_1}$

Descriptions.

$bn := \sqrt{1 + N_1^{\,2}}$ $\quad bg := \frac{N_1}{bn}$ $\quad bh := \frac{N_1 \cdot bg}{bn}$

$bf := 1 - bh$ $\quad bd := \frac{bg}{bn}$

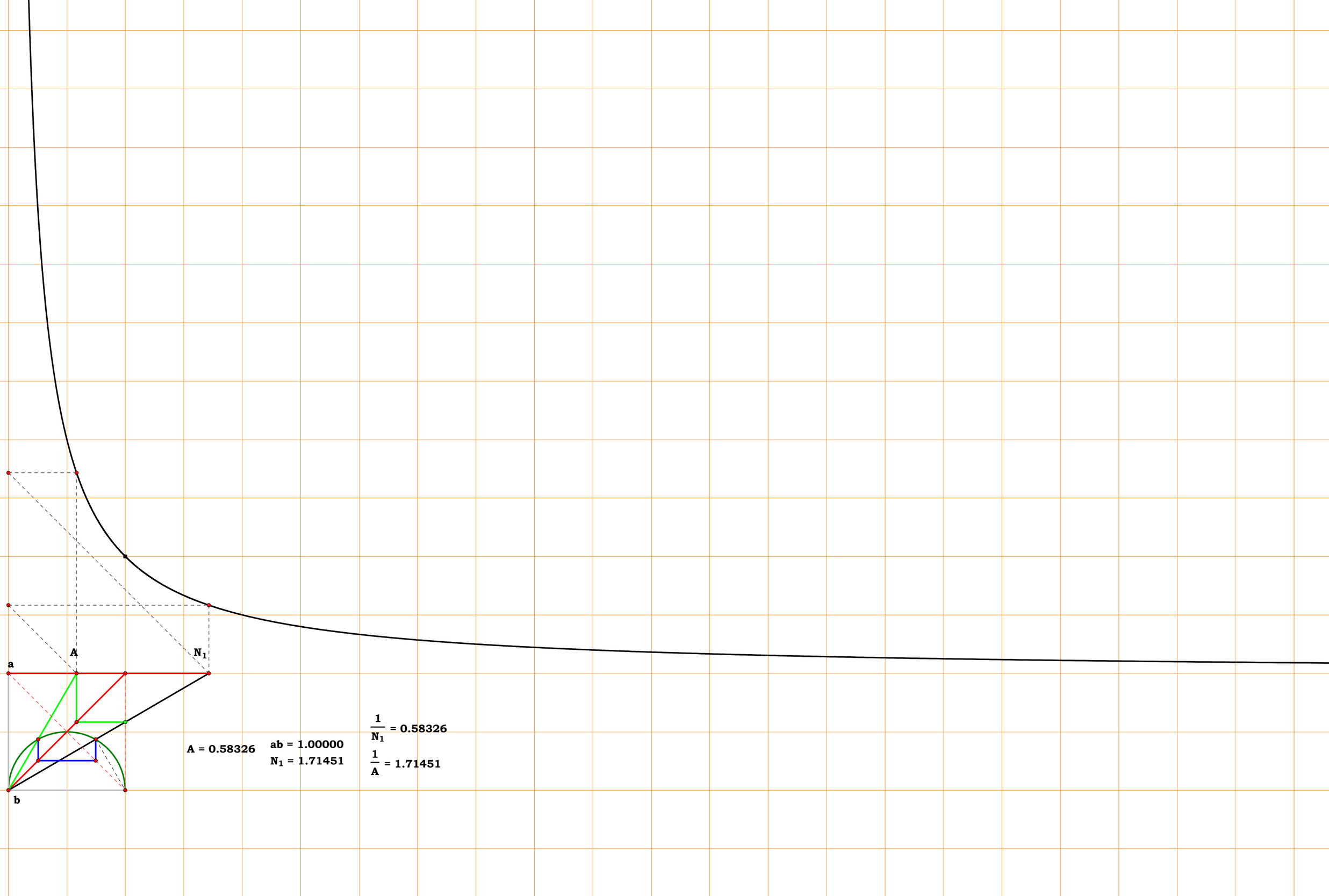
$R_1 := \frac{bf}{bd}$ $\quad R_2 := \frac{1}{R_1}$ $\quad R_1 = 0.583257$

Definitions.

$R_1 - \frac{1}{N_1} = 0$

$N_1 - \frac{1}{A} = 0$

$R_1 - A = 0$ $\quad R_2 - \frac{1}{A} = 0$



A = 0.58326

ab = 1.00000

N_1 = 1.71451

$\frac{1}{N_1}$ = 0.58326

$\frac{1}{A}$ = 1.71451

3OBT1R3

Given.

Unit. $ab := 1$

$N_1 := 1.97980$

$A := \frac{1}{N_1}$

Descriptions.

$bn := \sqrt{1 + N_1^2}$ $\quad bj := \frac{N_1}{bn}$ $\quad bk := \frac{N_1 \cdot bj}{bn}$

$bh := 1 - bk$ $\quad bg := \frac{bk}{N_1}$ $\quad bf := \frac{bh}{1 - bg}$

$ef := \sqrt{bf \cdot (1 - bf)}$ $\quad R_1 := \frac{bf}{ef}$

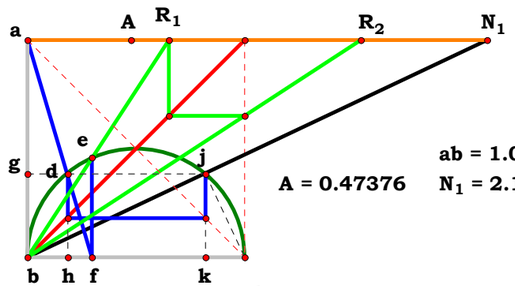
$R_2 := \frac{1}{R_1}$ $\quad R_1 = 0.717994$

Definitions.

$R_1 - \frac{1}{\sqrt{N_1^2 - N_1}} = 0$

$N_1 - \frac{1}{A} = 0$

$R_1 - \frac{A}{\sqrt{(1 - A)}} = 0$ $\quad R_2 - \frac{\sqrt{(1 - A)}}{A} = 0$



$ab = 1.00000$

$A = 0.47376$ $\quad N_1 = 2.11078$

$R_1 - \frac{1}{\sqrt{N_1^2 - N_1}} = 0.00000$

$R_1 - \frac{A}{\sqrt{1 - A}} = 0.00000$

$\frac{A}{\sqrt{1 - A}} - \frac{1}{\sqrt{N_1^2 - N_1}} = 0.00000$

$R_1 = 0.65308$

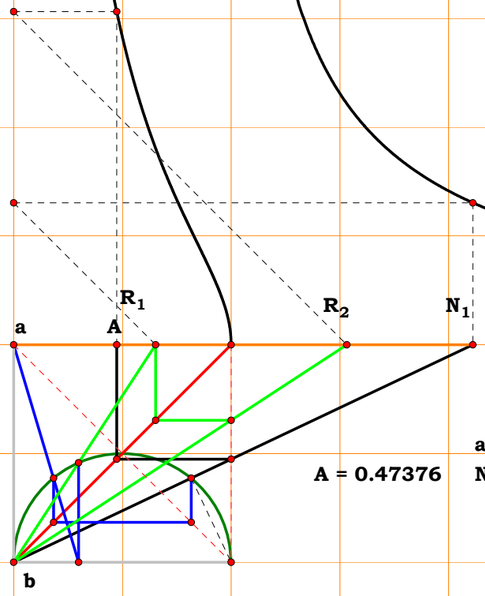
$\frac{1}{\sqrt{N_1^2 - N_1}} = 0.65308$

$\frac{A}{\sqrt{1 - A}} = 0.65308$

$R_2 = 1.53121$

$\frac{\sqrt{1 - A}}{A} = 1.53121$

$R_2 - \frac{\sqrt{1 - A}}{A} = 0.00000$



$A = 0.47376$

$ab = 1.00000$

$N_1 = 2.11078$

$R_1 = 0.65308$

$\frac{1}{\sqrt{N_1^2-N_1}} = 0.65308$

$\frac{A}{\sqrt{1-A}} = 0.65308$

$R_1 - \frac{1}{\sqrt{N_1^2-N_1}} = 0.00000$

$R_1 - \frac{A}{\sqrt{1-A}} = 0.00000$

$\frac{A}{\sqrt{1-A}} - \frac{1}{\sqrt{N_1^2-N_1}} = 0.00000$

$R_2 = 1.53121$

$\frac{\sqrt{1-A}}{A} = 1.53121$

$R_2 - \frac{\sqrt{1-A}}{A} = 0.00000$

3OBT1R4

Given.

Unit. $ab := 1$

$N_1 := 2.46859$

$A := \frac{1}{N_1}$

Descriptions.

$$bd := \frac{1}{N_1^2 - \sqrt{N_1^2} - \sqrt{N_1^2 - \sqrt{N_1^2}} + 1}$$

$cd := 1 - bd$ $de := \sqrt{bd \cdot cd}$

$$bf := \frac{bd}{1 - de} \qquad R_1 := bf$$

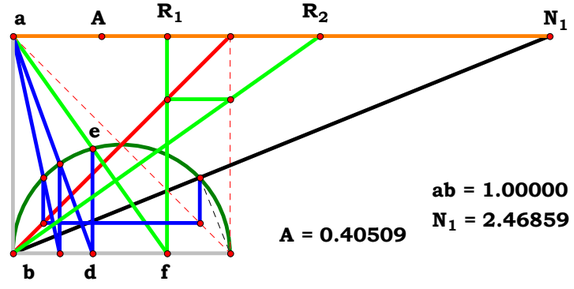
$R_2 := \frac{1}{R_1}$ $R_1 = 0.70956$

Definitions.

$$R_1 - \frac{1}{N_1^2 - N_1 - \sqrt{N_1^2 - N_1 - \sqrt{N_1^2 - N_1}} - \sqrt{N_1^2 - N_1} + 1} = 0$$

$$N_1 - \frac{1}{A} = 0$$

$$R_1 - \frac{A^2}{A^2 - A \cdot \sqrt{1 - A \cdot \sqrt{1 - A}} - A - A - A \cdot \sqrt{1 - A} + 1} = 0 \qquad R_2 - \frac{A^2 - A \cdot \sqrt{1 - A \cdot \sqrt{1 - A}} - A - A - A \cdot \sqrt{1 - A} + 1}{A^2} = 0$$



A = 0.40509

ab = 1.00000

$N_1 = 2.46859$

$R_1 = 0.70956$

$$\frac{1}{(N_1^2 - N_1 - \sqrt{N_1^2 - N_1 - \sqrt{N_1^2 - N_1}} - \sqrt{N_1^2 - N_1}) + 1} = 0.70956$$

$$\frac{A^2}{((A^2 - A \cdot \sqrt{1 - A \cdot \sqrt{1 - A}} - A - A - A \cdot \sqrt{1 - A}) + 1)} = 0.70956$$

$$R_1 - \frac{1}{(N_1^2 - N_1 - \sqrt{N_1^2 - N_1 - \sqrt{N_1^2 - N_1}} - \sqrt{N_1^2 - N_1}) + 1} = 0.00000$$

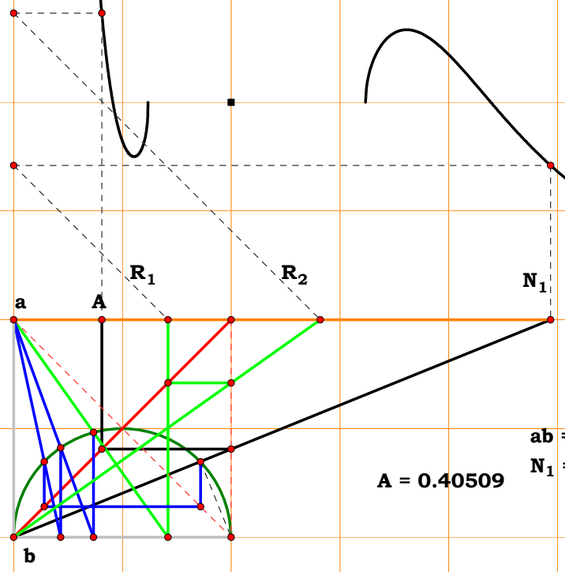
$$\frac{1}{(N_1^2 - N_1 - \sqrt{N_1^2 - N_1 - \sqrt{N_1^2 - N_1}} - \sqrt{N_1^2 - N_1}) + 1} - \frac{A^2}{((A^2 - A \cdot \sqrt{1 - A \cdot \sqrt{1 - A}} - A - A - A \cdot \sqrt{1 - A}) + 1)} = 0.00000$$

$$\frac{A^2}{((A^2 - A \cdot \sqrt{1 - A \cdot \sqrt{1 - A}} - A - A - A \cdot \sqrt{1 - A}) + 1)} - \frac{1}{(N_1^2 - N_1 - \sqrt{N_1^2 - N_1 - \sqrt{N_1^2 - N_1}} - \sqrt{N_1^2 - N_1}) + 1} = 0.00000$$

$R_2 = 1.40932$

$$\frac{((A^2 - A \cdot \sqrt{1 - A \cdot \sqrt{1 - A}} - A - A - A \cdot \sqrt{1 - A}) + 1)}{A^2} = 1.40932$$

$$R_2 - \frac{((A^2 - A \cdot \sqrt{1 - A \cdot \sqrt{1 - A}} - A - A - A \cdot \sqrt{1 - A}) + 1)}{A^2} = 0.00000$$



$ab = 1.00000$

$N_1 = 2.46859$

$A = 0.40509$

$R_1 = 0.70956$

$$\frac{1}{\left(N_1^2-N_1-\sqrt{N_1^2-N_1-\sqrt{N_1^2-N_1-\sqrt{N_1^2-N_1}}}\right)+1} = 0.70956$$

$$\frac{A^2}{\left(\left(A^2-A\cdot\sqrt{1-A\cdot\sqrt{1-A-A-A-A\cdot\sqrt{1-A}}}\right)+1\right)} = 0.70956$$

$R_2 = 1.40932$

$$\frac{\left(\left(A^2-A\cdot\sqrt{1-A\cdot\sqrt{1-A-A-A-A\cdot\sqrt{1-A}}}\right)+1\right)}{A^2} = 1.40932$$

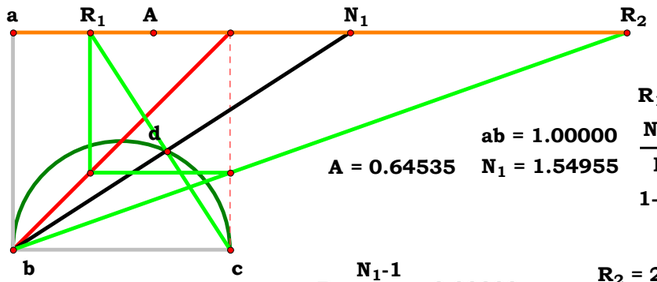
$$R_2 - \frac{\left(\left(A^2-A\cdot\sqrt{1-A\cdot\sqrt{1-A-A-A-A\cdot\sqrt{1-A}}}\right)+1\right)}{A^2} = 0.00000$$

$$R_1 - \frac{1}{\left(N_1^2-N_1-\sqrt{N_1^2-N_1-\sqrt{N_1^2-N_1-\sqrt{N_1^2-N_1}}}\right)+1} = 0.00000$$

$$\frac{1}{\left(N_1^2-N_1-\sqrt{N_1^2-N_1-\sqrt{N_1^2-N_1-\sqrt{N_1^2-N_1}}}\right)+1} - \frac{A^2}{\left(\left(A^2-A\cdot\sqrt{1-A\cdot\sqrt{1-A-A-A-A\cdot\sqrt{1-A}}}\right)+1\right)} = 0.00000$$

$$\frac{A^2}{\left(\left(A^2-A\cdot\sqrt{1-A\cdot\sqrt{1-A-A-A-A\cdot\sqrt{1-A}}}\right)+1\right)} - \frac{1}{\left(N_1^2-N_1-\sqrt{N_1^2-N_1-\sqrt{N_1^2-N_1-\sqrt{N_1^2-N_1}}}\right)+1} = 0.00000$$

3OBT1R5



$R_1 = 0.35465$

$ab = 1.00000$ $\frac{N_1-1}{N_1} = 0.35465$

$A = 0.64535$ $N_1 = 1.54955$

$1-A = 0.35465$

Given.

Unit. $ab := 1$

$N_1 := 1.54955$

$A := \frac{1}{N_1}$

$R_1-\frac{N_1-1}{N_1} = 0.00000$

$R_1-(1-A) = 0.00000$

$(1-A)-\frac{N_1-1}{N_1} = 0.00000$

$R_2 = 2.81966$

$\frac{1}{(1-A)} = 2.81966$

$R_2-\frac{1}{(1-A)} = 0.00000$

Descriptions.

$BN_1 := \sqrt{N_1^{\,2}+1}$ $BD := \frac{N_1}{BN_1}$

$DN_1 := BN_1 - BD$ $NR := \frac{BN_1 \cdot DN_1}{N_1}$

$R_1 := N_1 - NR$ $R_1 = 0.354651$

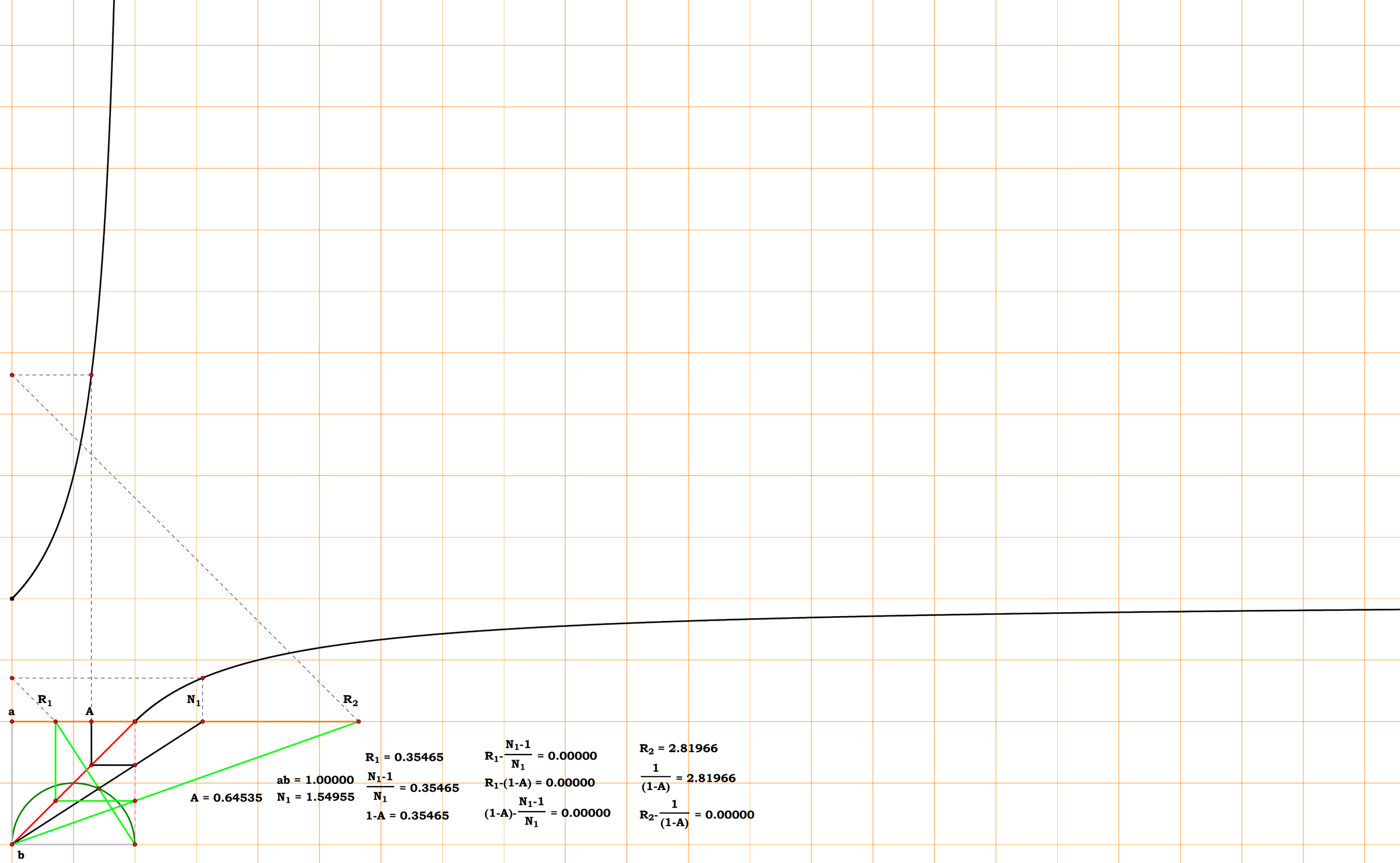
$R_2 := \frac{1}{R_1}$

Definitions.

$R_1 - \frac{N_1 - 1}{N_1} = 0$

$N_1 - \frac{1}{A} = 0$

$R_1 - (1 - A) = 0$ $R_2 - \frac{1}{(1 - A)} = 0$



$ab = 1.00000$

$A = 0.64535$

$N_1 = 1.54955$

$R_1 = 0.35465$

$\frac{N_1-1}{N_1} = 0.35465$

$1-A = 0.35465$

$R_1 - \frac{N_1-1}{N_1} = 0.00000$

$R_1-(1-A) = 0.00000$

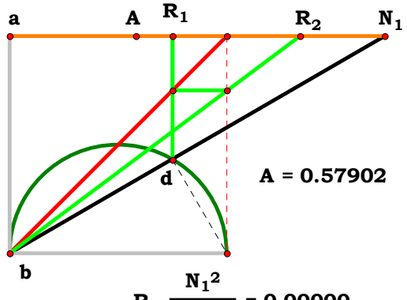
$(1-A) - \frac{N_1-1}{N_1} = 0.00000$

$R_2 = 2.81966$

$\frac{1}{(1-A)} = 2.81966$

$R_2 - \frac{1}{(1-A)} = 0.00000$

3OBT1R6



A = 0.57902

ab = 1.00000

N1 = 1.72705

R1 = 0.74891

$\frac{N_1^2}{N_1^2+1} = 0.74891$

$\frac{1}{A^2+1} = 0.74891$

Given.

Unit. $ab := 1$

$N_1 := 1.72705$

$A := \frac{1}{N_1}$

Descriptions.

$bd := \frac{N_1}{\left(N_1^2+1\right)^{\frac{1}{2}}}$ $bn := \sqrt{N_1^2+1}$

$R_1 := \frac{N_1 \cdot bd}{bn}$ $R_2 := \frac{1}{R_1}$ $R_1 = 0.748914$

Definitions.

$R_1 - \frac{N_1^2}{N_1^2+1} = 0$

$N_1 - \frac{1}{A} = 0$

$R_1 - \frac{1}{A^2+1} = 0$ $R_2 - \left(A^2+1\right) = 0$

$R_1 - \frac{N_1^2}{N_1^2+1} = 0.00000$

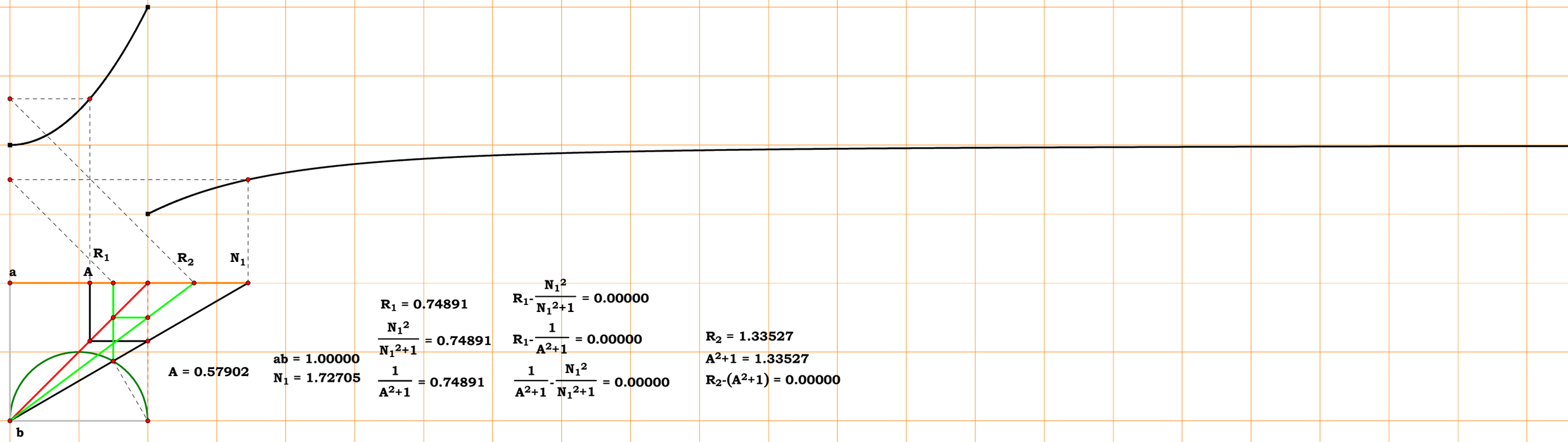
$R_1 - \frac{1}{A^2+1} = 0.00000$

$\frac{1}{A^2+1} - \frac{N_1^2}{N_1^2+1} = 0.00000$

$R_2 = 1.33527$

$A^2+1 = 1.33527$

$R_2-(A^2+1) = 0.00000$



$A = 0.57902$

$ab = 1.00000$

$N_1 = 1.72705$

$R_1 = 0.74891$

$\frac{N_1^2}{N_1^2+1} = 0.74891$

$\frac{1}{A^2+1} = 0.74891$

$R_1 - \frac{N_1^2}{N_1^2+1} = 0.00000$

$R_1 - \frac{1}{A^2+1} = 0.00000$

$\frac{1}{A^2+1} - \frac{N_1^2}{N_1^2+1} = 0.00000$

$R_2 = 1.33527$

$A^2+1 = 1.33527$

$R_2 - (A^2+1) = 0.00000$

3OBT1R7

Given.

Unit. $ab := 1$

$N_1 := 1.65442 \quad N_2 := 1.47544$

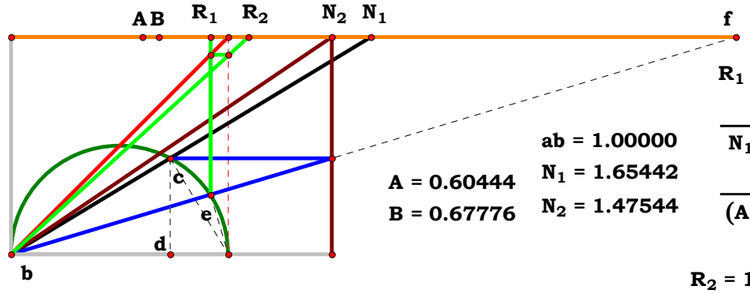
$A := \frac{1}{N_1} \quad B := \frac{1}{N_2}$

Descriptions.

$bN_1 := \sqrt{1 + N_1^2} \quad bc := \frac{N_1}{bN_1} \quad cd := \frac{bc}{bN_1}$

$af := \frac{N_2}{cd} \quad bf := \sqrt{1 + af^2} \quad be := \frac{af}{bf}$

$R_1 := af \cdot \frac{be}{bf} \quad R_2 := \frac{1}{R_1} \quad R_1 = 0.917408$



A = 0.60444
B = 0.67776

ab = 1.00000
N_1 = 1.65442
N_2 = 1.47544

$R_1 = 0.91741$

$\frac{N_2^2 \cdot (N_1^2+1)^2}{N_1^4 \cdot N_2^2+2 \cdot N_1^2 \cdot N_2^2+N_1^2+N_2^2} = 0.91741$

$\frac{(A^2+1)^2}{(A^4+A^2 \cdot B^2+2 \cdot A^2+1)} = 0.91741$

$R_1 - \frac{N_2^2 \cdot (N_1^2+1)^2}{N_1^4 \cdot N_2^2+2 \cdot N_1^2 \cdot N_2^2+N_1^2+N_2^2} = 0.00000$

$R_1 - \frac{(A^2+1)^2}{(A^4+A^2 \cdot B^2+2 \cdot A^2+1)} = 0.00000$

$\frac{(A^2+1)^2}{(A^4+A^2 \cdot B^2+2 \cdot A^2+1)} - \frac{N_2^2 \cdot (N_1^2+1)^2}{N_1^4 \cdot N_2^2+2 \cdot N_1^2 \cdot N_2^2+N_1^2+N_2^2} = 0.00000$

$R_2 = 1.09003$

$\frac{(A^4+A^2 \cdot B^2+2 \cdot A^2+1)}{(A^2+1)^2} = 1.09003$

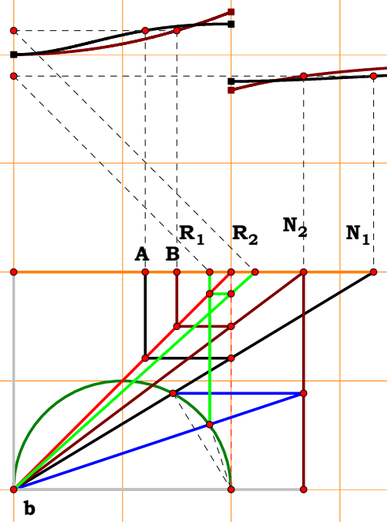
$R_2 - \frac{(A^4+A^2 \cdot B^2+2 \cdot A^2+1)}{(A^2+1)^2} = 0.00000$

Definitions.

$R_1 - \frac{N_2^2 \cdot \left(N_1^2+1\right)^2}{N_1^4 \cdot N_2^2+2 \cdot N_1^2 \cdot N_2^2+N_1^2+N_2^2} = 0$

$N_1 - \frac{1}{A} = 0 \qquad N_2 - \frac{1}{B} = 0$

$R_1 - \frac{\left(A^2+1\right)^2}{A^4+A^2 \cdot B^2+\left(2 \cdot A^2+1\right)} = 0 \qquad R_2 - \frac{A^4+A^2 \cdot B^2+\left(2 \cdot A^2+1\right)}{\left(A^2+1\right)^2} = 0$



A = 0.60444

B = 0.75033

ab = 1.00000

N_1 = 1.65442

N_2 = 1.33274

R_1 = 0.90063

$$\frac{N_2^2\cdot(N_1^2+1)^2}{N_1^4\cdot N_2^2+2\cdot N_1^2\cdot N_2^2+N_1^2+N_2^2} = 0.90063$$

$$\frac{(A^2+1)^2}{(A^4+A^2\cdot B^2+2\cdot A^2+1)} = 0.90063$$

$$R_1-\frac{N_2^2\cdot(N_1^2+1)^2}{N_1^4\cdot N_2^2+2\cdot N_1^2\cdot N_2^2+N_1^2+N_2^2} = 0.00000$$

$$R_1-\frac{(A^2+1)^2}{(A^4+A^2\cdot B^2+2\cdot A^2+1)} = 0.00000$$

$$\frac{(A^2+1)^2}{(A^4+A^2\cdot B^2+2\cdot A^2+1)}-\frac{N_2^2\cdot(N_1^2+1)^2}{N_1^4\cdot N_2^2+2\cdot N_1^2\cdot N_2^2+N_1^2+N_2^2} = 0.00000$$

R_2 = 1.11034

$$\frac{(A^4+A^2\cdot B^2+2\cdot A^2+1)}{(A^2+1)^2} = 1.11034$$

$$R_2-\frac{(A^4+A^2\cdot B^2+2\cdot A^2+1)}{(A^2+1)^2} = 0.00000$$

3OBT1R8

Given.

Unit. $ab := 1$

$N_1 := 2.70179$

$A := \frac{1}{N_1}$

Descriptions.

$be := \frac{1}{N_1^2 - \sqrt{N_1^2} - \sqrt{N_1^2 - \sqrt{N_1^2}} + 1}$

$bg := 1 - be$

$de := \frac{\sqrt{N_1^2 - \sqrt{N_1^2} - \sqrt{N_1^2 - \sqrt{N_1^2}}}}{N_1^2 - \sqrt{N_1^2} - \sqrt{N_1^2 - \sqrt{N_1^2}} + 1}$

$R_1 := \frac{bg}{de}$

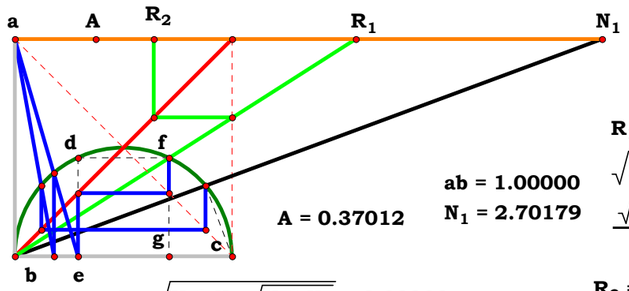
$R_2 := \frac{1}{R_1}$ $R_1 = 1.566401$

Definitions.

$R_1 - \sqrt{N_1^2 - N_1 - \sqrt{N_1^2 - N_1}} = 0$

$N_1 - \frac{1}{A} = 0$

$R_1 - \frac{\sqrt{1 - A - A \cdot \sqrt{1 - A}}}{A} = 0$ $R_2 - \frac{A}{\sqrt{1 - A - A \cdot \sqrt{1 - A}}} = 0$



$A = 0.37012$

$ab = 1.00000$

$N_1 = 2.70179$

$R_1 = 1.56641$

$\sqrt{N_1^2 - N_1 - \sqrt{N_1^2 - N_1}} = 1.56641$

$\frac{\sqrt{1 - A - A \cdot \sqrt{1 - A}}}{A} = 1.56641$

$R_1 - \sqrt{N_1^2 - N_1 - \sqrt{N_1^2 - N_1}} = 0.00000$

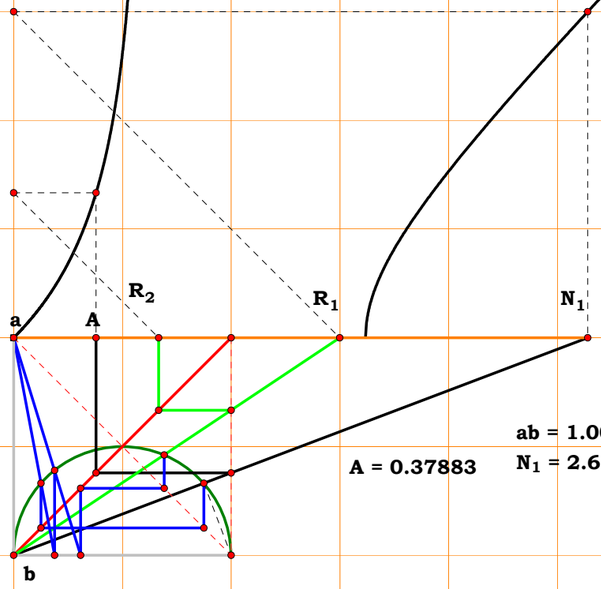
$R_1 - \frac{\sqrt{1 - A - A \cdot \sqrt{1 - A}}}{A} = 0.00000$

$\frac{\sqrt{1 - A - A \cdot \sqrt{1 - A}}}{A} - \sqrt{N_1^2 - N_1 - \sqrt{N_1^2 - N_1}} = 0.00000$

$R_2 = 0.63840$

$\frac{A}{\sqrt{1 - A - A \cdot \sqrt{1 - A}}} = 0.63840$

$R_2 - \frac{A}{\sqrt{1 - A - A \cdot \sqrt{1 - A}}} = 0.00000$



A = 0.37883

ab = 1.00000

$N_1 = 2.63969$

$R_1 = 1.49927$

$\sqrt{N_1^2-N_1-\sqrt{N_1^2-N_1}} = 1.49927$

$\frac{\sqrt{1-A-A\cdot\sqrt{1-A}}}{A} = 1.49927$

$R_1-\sqrt{N_1^2-N_1-\sqrt{N_1^2-N_1}} = 0.00000$

$R_1-\frac{\sqrt{1-A-A\cdot\sqrt{1-A}}}{A} = 0.00000$

$\frac{\sqrt{1-A-A\cdot\sqrt{1-A}}}{A}-\sqrt{N_1^2-N_1-\sqrt{N_1^2-N_1}} = 0.00000$

$R_2 = 0.66699$

$\frac{A}{\sqrt{1-A-A\cdot\sqrt{1-A}}} = 0.66699$

$R_2-\frac{A}{\sqrt{1-A-A\cdot\sqrt{1-A}}} = 0.00000$

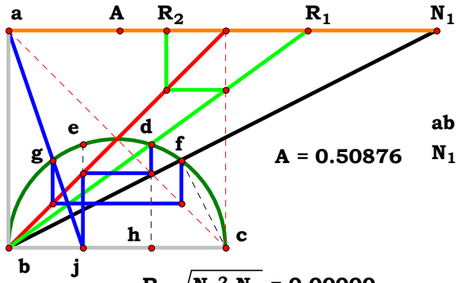
3OBT1R9

Given.

Unit. $ab := 1$

$N_1 := 1.96557$

$A := \frac{1}{N_1}$



$A = 0.50876$

$ab = 1.00000$

$N_1 = 1.96557$

$R_1 = 1.37765$

$\sqrt{N_1^2 - N_1} = 1.37765$

$\frac{\sqrt{1-A}}{A} = 1.37765$

$R_1 - \sqrt{N_1^2 - N_1} = 0.00000$

$R_1 - \frac{\sqrt{1-A}}{A} = 0.00000$

$\frac{\sqrt{1-A}}{A} - \sqrt{N_1^2 - N_1} = 0.00000$

$R_2 = 0.72588$

$\frac{A}{\sqrt{1-A}} = 0.72588$

$R_2 - \frac{A}{\sqrt{1-A}} = 0.00000$

Descriptions.

$bj := \frac{1}{N_1^2 - \sqrt{N_1^2} + 1}$ $\quad bh := 1 - bj$

$ej := \frac{\sqrt{N_1^2 - \sqrt{N_1^2}}}{N_1^2 - \sqrt{N_1^2} + 1}$ $\quad R_1 := \frac{bh}{ej}$

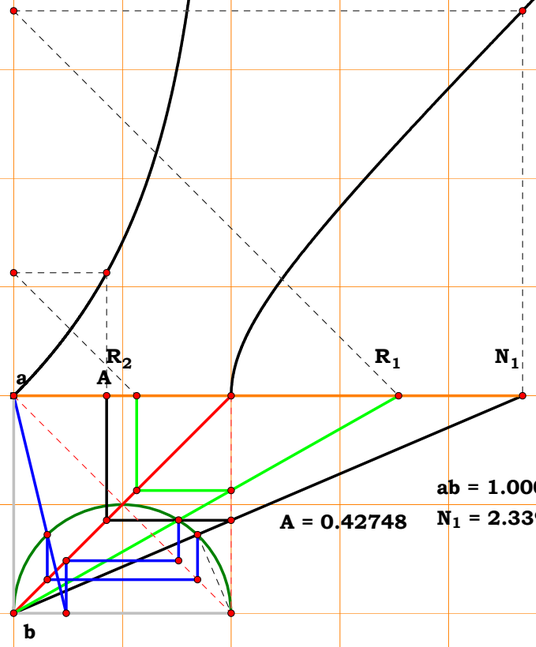
$R_2 := \frac{1}{R_1}$ $\quad R_1 = 1.377641$

Definitions.

$R_1 - \sqrt{N_1^2 - N_1} = 0$

$N_1 - \frac{1}{A} = 0$

$R_1 - \frac{\sqrt{(1-A)}}{A} = 0$ $\quad R_2 - \frac{A}{\sqrt{1-A}} = 0$



ab = 1.00000

N_1 = 2.33931

A = 0.42748

R_1 = 1.77004

$\sqrt{N_1^2-N_1}$ = 1.77004

$\frac{\sqrt{1-A}}{A}$ = 1.77004

$R_1-\sqrt{N_1^2-N_1}$ = 0.00000

$R_1-\frac{\sqrt{1-A}}{A}$ = 0.00000

$\frac{\sqrt{1-A}}{A}-\sqrt{N_1^2-N_1}$ = 0.00000

R_2 = 0.56496

$\frac{A}{\sqrt{1-A}}$ = 0.56496

$R_2-\frac{A}{\sqrt{1-A}}$ = 0.00000

3OBT1R10

Given.

Unit. $ab := 1$

$N_1 := 1.33336 \quad N_2 := 1.74167$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2}$

Descriptions.

$bN_1 := \sqrt{1 + N_1^{\,2}} \quad bc := \frac{N_1}{bN_1}$

$dN_2 := 1 - \frac{bc}{bN_1} \quad R_1 := \frac{N_2}{dN_2}$

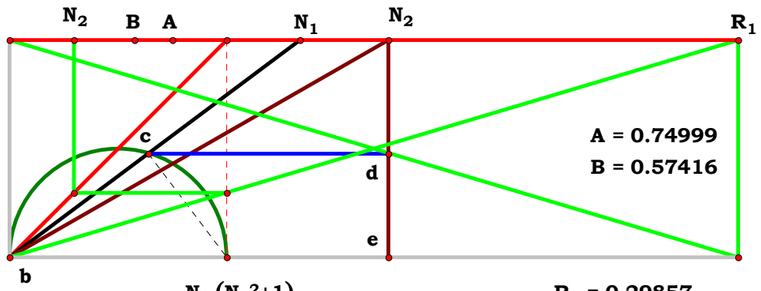
$R_2 := \frac{1}{R_1} \quad R_1 = 3.349348$

Definitions.

$R_1 - \frac{N_2 \cdot \left(N_1^{\,2} + 1\right)}{N_1^{\,2} - N_1 + 1} = 0$

$N_1 - \frac{1}{A} = 0 \qquad N_2 - \frac{1}{B} = 0$

$R_1 - \frac{\left(A^2 + 1\right)}{B \cdot \left(A^2 - A + 1\right)} = 0 \qquad R_2 - \frac{B \cdot \left(A^2 - A + 1\right)}{\left(A^2 + 1\right)} = 0$



$A = 0.74999$

$B = 0.57416$

$ab = 1.00000$

$N_1 = 1.33336$

$N_2 = 1.74167$

$R_1 = 3.34935$

$\frac{N_2 \cdot (N_1^{\,2}+1)}{(N_1^{\,2}-N_1)+1} = 3.34935$

$\frac{A^2+1}{B \cdot ((A^2-A)+1)} = 3.34935$

$R_1 - \frac{N_2 \cdot (N_1^{\,2}+1)}{(N_1^{\,2}-N_1)+1} = 0.00000$

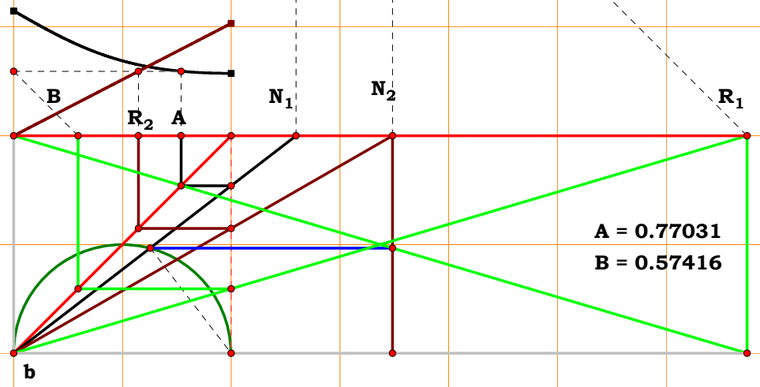
$R_1 - \frac{A^2+1}{B \cdot ((A^2-A)+1)} = 0.00000$

$\frac{A^2+1}{B \cdot ((A^2-A)+1)} - \frac{N_2 \cdot (N_1^{\,2}+1)}{(N_1^{\,2}-N_1)+1} = 0.00000$

$R_2 = 0.29857$

$\frac{B \cdot ((A^2-A)+1)}{A^2+1} = 0.29857$

$R_2 - \frac{B \cdot ((A^2-A)+1)}{A^2+1} = 0.00000$



$A = 0.77031$

$B = 0.57416$

$ab = 1.00000$

$N_1 = 1.29818$

$N_2 = 1.74167$

$R_1 = 3.37169$

$$\frac{N_2\cdot(N_1^2+1)}{(N_1^2-N_1)+1} = 3.37169$$

$$\frac{A^2+1}{B\cdot((A^2-A)+1)} = 3.37169$$

$$R_1-\frac{N_2\cdot(N_1^2+1)}{(N_1^2-N_1)+1} = 0.00000$$

$$R_1-\frac{A^2+1}{B\cdot((A^2-A)+1)} = 0.00000$$

$$\frac{A^2+1}{B\cdot((A^2-A)+1)}-\frac{N_2\cdot(N_1^2+1)}{(N_1^2-N_1)+1} = 0.00000$$

$R_2 = 0.29659$

$$\frac{B\cdot((A^2-A)+1)}{A^2+1} = 0.29659$$

$$R_2-\frac{B\cdot((A^2-A)+1)}{A^2+1} = 0.00000$$

3OBT1R11

Given.

Unit. $ab := 1$

$N_1 := 2.47482 \quad N_2 := 1.42689$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2}$

Descriptions.

$bN_1 := \sqrt{1 + N_1^{\,2}} \quad bc := \frac{N_1}{bN_1}$

$de := \frac{bc}{bN_1} \quad R_1 := \frac{N_2}{de}$

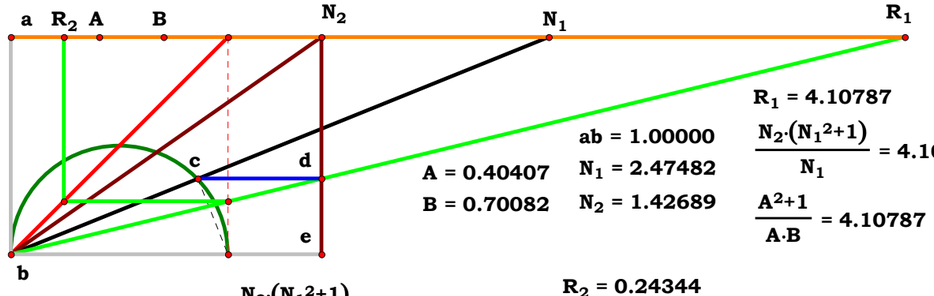
$R_2 := \frac{1}{R_1} \quad R_1 = 4.107859$

Definitions.

$R_1 - \frac{N_2 \cdot \left(N_1^{\,2} + 1\right)}{N_1} = 0$

$N_1 - \frac{1}{A} = 0 \quad N_2 - \frac{1}{B} = 0$

$R_1 - \frac{A^2 + 1}{A \cdot B} = 0 \quad R_2 - \frac{A \cdot B}{A^2 + 1} = 0$



$A = 0.40407$

$B = 0.70082$

$ab = 1.00000$

$N_1 = 2.47482$

$N_2 = 1.42689$

$R_1 = 4.10787$

$\frac{N_2 \cdot (N_1^2+1)}{N_1} = 4.10787$

$\frac{A^2+1}{A \cdot B} = 4.10787$

$R_1 - \frac{N_2 \cdot (N_1^2+1)}{N_1} = 0.00000$

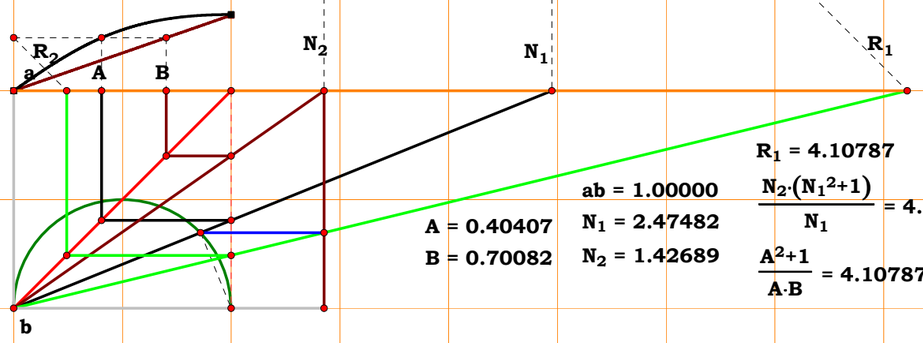
$R_1 - \frac{A^2+1}{A \cdot B} = 0.00000$

$\frac{A^2+1}{A \cdot B} - \frac{N_2 \cdot (N_1^2+1)}{N_1} = 0.00000$

$R_2 = 0.24344$

$\frac{A \cdot B}{A^2+1} = 0.24344$

$R_2 - \frac{A \cdot B}{A^2+1} = 0.00000$



$A = 0.40407$

$B = 0.70082$

$ab = 1.00000$

$N_1 = 2.47482$

$N_2 = 1.42689$

$R_1 = 4.10787$

$\frac{N_2 \cdot (N_1^2+1)}{N_1} = 4.10787$

$\frac{A^2+1}{A \cdot B} = 4.10787$

$R_1 - \frac{N_2 \cdot (N_1^2+1)}{N_1} = 0.00000$

$R_1 - \frac{A^2+1}{A \cdot B} = 0.00000$

$\frac{A^2+1}{A \cdot B} - \frac{N_2 \cdot (N_1^2+1)}{N_1} = 0.00000$

$R_2 = 0.24344$

$\frac{A \cdot B}{A^2+1} = 0.24344$

$R_2 - \frac{A \cdot B}{A^2+1} = 0.00000$

3OBT1R12

Given.

Unit. $ab := 1$

$N_1 := 2.09809 \quad N_2 := 1.79654$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2}$

Descriptions.

$bN_1 := \sqrt{1 + N_1^2} \quad bd := \frac{N_1}{bN_1} \quad bc := \frac{bd}{bN_1}$

$ce := N_2 \cdot (1 - bc) \quad R_1 := \frac{ce}{bc}$

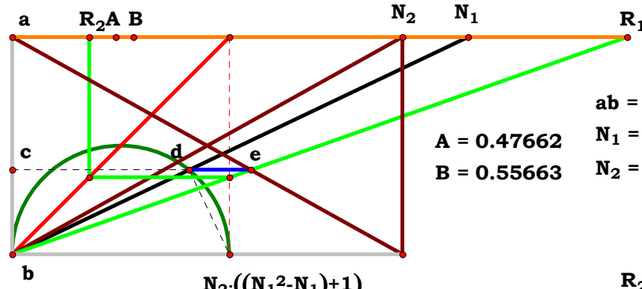
$R_2 := \frac{1}{R_1} \quad R_1 = 2.829037$

Definitions.

$R_1 - \frac{N_2 \cdot \left(N_1^2 - N_1 + 1\right)}{N_1} = 0$

$N_1 - \frac{1}{A} = 0 \quad N_2 - \frac{1}{B} = 0$

$R_1 - \frac{A^2 - A + 1}{A \cdot B} = 0 \quad R_2 - \frac{A \cdot B}{A^2 - A + 1} = 0$



A = 0.47662
B = 0.55663

ab = 1.00000
N1 = 2.09809
N2 = 1.79654

$R_1 = 2.82903$

$\frac{N_2 \cdot ((N_1^2 - N_1) + 1)}{N_1} = 2.82903$

$\frac{((A^2 - A) + 1)}{(A \cdot B)} = 2.82903$

$R_1 - \frac{N_2 \cdot ((N_1^2 - N_1) + 1)}{N_1} = 0.00000$

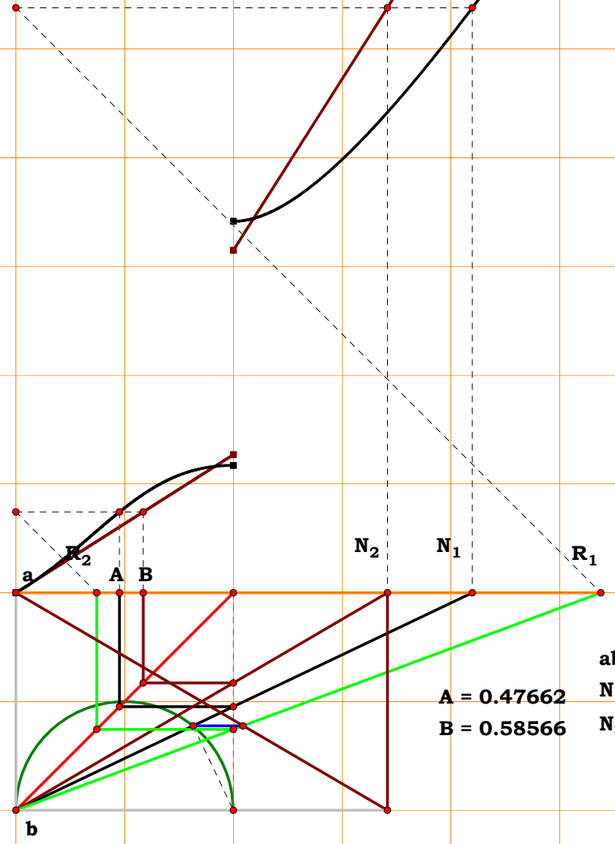
$R_1 - \frac{((A^2 - A) + 1)}{(A \cdot B)} = 0.00000$

$\frac{((A^2 - A) + 1)}{(A \cdot B)} - \frac{N_2 \cdot ((N_1^2 - N_1) + 1)}{N_1} = 0.00000$

$R_2 = 0.35348$

$\frac{(A \cdot B)}{((A^2 - A) + 1)} = 0.35348$

$R_2 - \frac{(A \cdot B)}{((A^2 - A) + 1)} = 0.00000$



$A = 0.47662$

$B = 0.58566$

$ab = 1.00000$

$N_1 = 2.09809$

$N_2 = 1.70749$

$R_1 = 2.68881$

$$\frac{N_2\cdot((N_1^2-N_1)+1)}{N_1} = 2.68881$$

$$\frac{((A^2-A)+1)}{(A\cdot B)} = 2.68881$$

$$R_1-\frac{N_2\cdot((N_1^2-N_1)+1)}{N_1} = 0.00000$$

$$R_1-\frac{((A^2-A)+1)}{(A\cdot B)} = 0.00000$$

$$\frac{((A^2-A)+1)}{(A\cdot B)}-\frac{N_2\cdot((N_1^2-N_1)+1)}{N_1} = 0.00000$$

$R_2 = 0.37191$

$$\frac{(A\cdot B)}{((A^2-A)+1)} = 0.37191$$

$$R_2-\frac{(A\cdot B)}{((A^2-A)+1)} = 0.00000$$

3OBT1R13

Given.

Unit. $ab := 1$

$N_1 := 4.59554$

$A := \frac{1}{N_1}$

Descriptions.

$bg := \frac{1}{N_1}$ $fg := \sqrt{bg \cdot (1 - bg)}$

$bj := \frac{bg}{1 - fg}$ $cj := 1 - bj$

$hj := \sqrt{bj \cdot cj}$ $bm := \frac{bj}{1 - hj}$

$cm := 1 - bm$ $km := \sqrt{bm \cdot cm}$

$bd := cm$ $de := km$ $R_1 := \frac{bd}{de}$

$R_2 := \frac{1}{R_1}$ $R_1 = 0.629093$

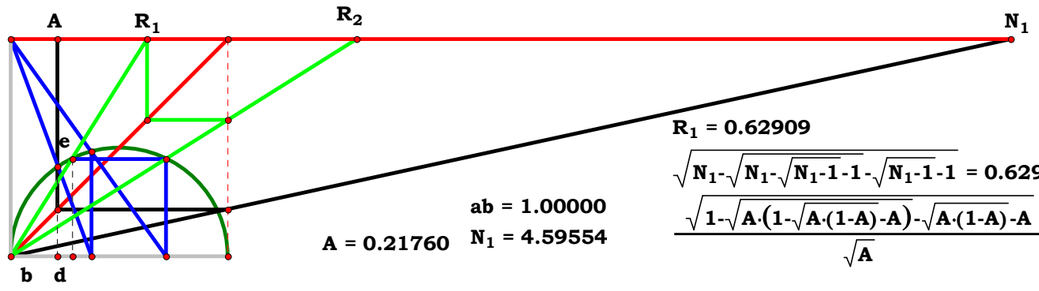
Definitions.

$$R_1 - \sqrt{N_1 - \sqrt{N_1 - \sqrt{N_1 - 1} - 1} - \sqrt{N_1 - 1} - 1} = 0$$

$$N_1 - \frac{1}{A} = 0$$

$$R_1 - \frac{\sqrt{1 - \sqrt{A \cdot \left[1 - \sqrt{A \cdot (1 - A)} - A\right]} - \sqrt{A \cdot (1 - A)} - A}}{\sqrt{A}} = 0$$

$$R_2 - \frac{\sqrt{A}}{\sqrt{1 - \sqrt{A \cdot \left[1 - \sqrt{A \cdot (1 - A)} - A\right]} - \sqrt{A \cdot (1 - A)} - A}} = 0$$



$A = 0.21760$ $ab = 1.00000$ $N_1 = 4.59554$

$R_1 = 0.62909$

$$\sqrt{N_1 - \sqrt{N_1 - \sqrt{N_1 - 1} - 1} - \sqrt{N_1 - 1} - 1} = 0.62909$$

$$\frac{\sqrt{1 - \sqrt{A \cdot \left(1 - \sqrt{A \cdot (1 - A)} - A\right)} - \sqrt{A \cdot (1 - A)} - A}}{\sqrt{A}} = 0.62909$$

$$R_1 - \sqrt{N_1 - \sqrt{N_1 - \sqrt{N_1 - 1} - 1} - \sqrt{N_1 - 1} - 1} = 0.00000$$

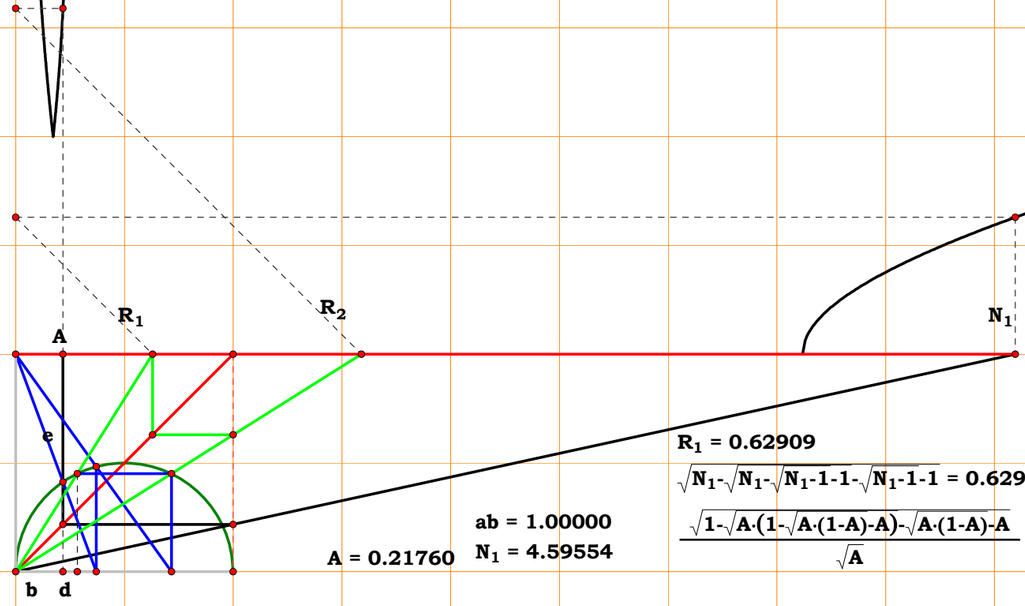
$$R_1 - \frac{\sqrt{1 - \sqrt{A \cdot \left(1 - \sqrt{A \cdot (1 - A)} - A\right)} - \sqrt{A \cdot (1 - A)} - A}}{\sqrt{A}} = 0.00000$$

$$\frac{\sqrt{1 - \sqrt{A \cdot \left(1 - \sqrt{A \cdot (1 - A)} - A\right)} - \sqrt{A \cdot (1 - A)} - A}}{\sqrt{A}} - \sqrt{N_1 - \sqrt{N_1 - \sqrt{N_1 - 1} - 1} - \sqrt{N_1 - 1} - 1} = 0.00000$$

$R_2 = 1.58959$

$$\frac{\sqrt{A}}{\sqrt{1 - \sqrt{A \cdot \left(1 - \sqrt{A \cdot (1 - A)} - A\right)} - \sqrt{A \cdot (1 - A)} - A}} = 1.58959$$

$$R_2 - \frac{\sqrt{A}}{\sqrt{1 - \sqrt{A \cdot \left(1 - \sqrt{A \cdot (1 - A)} - A\right)} - \sqrt{A \cdot (1 - A)} - A}} = 0.00000$$



A = 0.21760

ab = 1.00000

$N_1 = 4.59554$

$R_1 = 0.62909$

$\sqrt{N_1-\sqrt{N_1-\sqrt{N_1-1-1-\sqrt{N_1-1-1}}}} = 0.62909$

$\frac{\sqrt{1-\sqrt{A\cdot(1-\sqrt{A\cdot(1-A)-A})-\sqrt{A\cdot(1-A)-A}}}}{\sqrt{A}} = 0.62909$

$R_1-\sqrt{N_1-\sqrt{N_1-\sqrt{N_1-1-1-\sqrt{N_1-1-1}}}} = 0.00000$

$R_1-\frac{\sqrt{1-\sqrt{A\cdot(1-\sqrt{A\cdot(1-A)-A})-\sqrt{A\cdot(1-A)-A}}}}{\sqrt{A}} = 0.00000$

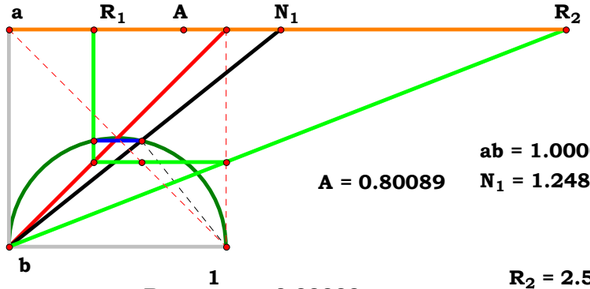
$\frac{\sqrt{1-\sqrt{A\cdot(1-\sqrt{A\cdot(1-A)-A})-\sqrt{A\cdot(1-A)-A}}}}{\sqrt{A}}-\sqrt{N_1-\sqrt{N_1-\sqrt{N_1-1-1-\sqrt{N_1-1-1}}}} = 0.00000$

$R_2 = 1.58959$

$\frac{\sqrt{A}}{\sqrt{1-\sqrt{A\cdot(1-\sqrt{A\cdot(1-A)-A})-\sqrt{A\cdot(1-A)-A}}}} = 1.58959$

$R_2-\frac{\sqrt{A}}{\sqrt{1-\sqrt{A\cdot(1-\sqrt{A\cdot(1-A)-A})-\sqrt{A\cdot(1-A)-A}}}} = 0.00000$

3OBT1R14



A = 0.80089

ab = 1.00000

N1 = 1.24861

R1 = 0.39077

$\frac{1}{N_1^2+1} = 0.39077$

$\frac{A^2}{A^2+1} = 0.39077$

$R_1 - \frac{1}{N_1^2+1} = 0.00000$

$R_1 - \frac{A^2}{A^2+1} = 0.00000$

$\frac{A^2}{A^2+1} - \frac{1}{N_1^2+1} = 0.00000$

R2 = 2.55903

$\frac{A^2+1}{A^2} = 2.55903$

$R_2 - \frac{A^2+1}{A^2} = 0.00000$

Given.

Unit. $ab := 1$

$N_1 := 1.24861$

$A := \frac{1}{N_1}$

Descriptions.

$cg := \frac{1}{N_1^2 + 1}$ $bf := cg$

$R_1 := bf$ $R_2 := \frac{1}{R_1}$

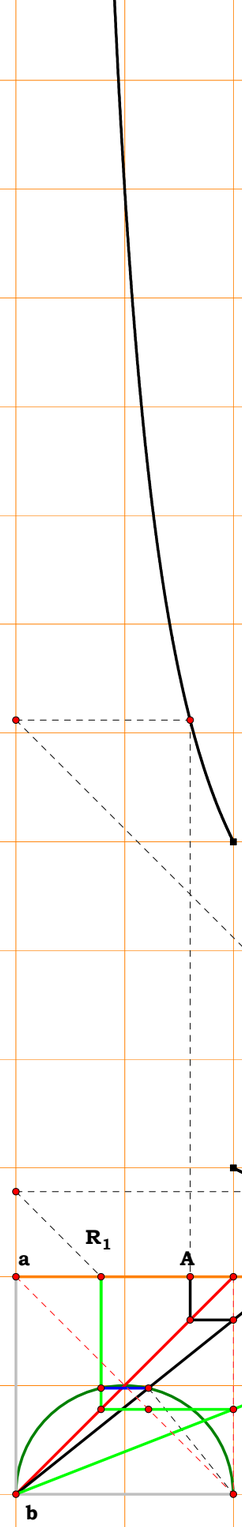
$R_1 = 0.390774$

Definitions.

$R_1 - \frac{1}{N_1^2 + 1} = 0$

$N_1 - \frac{1}{A} = 0$

$R_1 - \frac{A^2}{A^2 + 1} = 0$ $R_2 - \frac{A^2 + 1}{A^2} = 0$



ab = 1.00000

A = 0.80089 N_1 = 1.24861

R_1 = 0.39077

$\frac{1}{N_1^2+1}$ = 0.39077

$\frac{A^2}{A^2+1}$ = 0.39077

$R_1-\frac{1}{N_1^2+1}$ = 0.00000

$R_1-\frac{A^2}{A^2+1}$ = 0.00000

$\frac{A^2}{A^2+1}-\frac{1}{N_1^2+1}$ = 0.00000

R_2 = 2.55903

$\frac{A^2+1}{A^2}$ = 2.55903

$R_2-\frac{A^2+1}{A^2}$ = 0.00000

3OBT1R15

Given.

Unit. $ab := 1$

$N_1 := 1.35556$

$A := \frac{1}{N_1}$

Descriptions.

$bg := \frac{1}{N_1}$ $\quad cg := 1 - bg$

$eg := \sqrt{bg \cdot cg}$ $\quad bf := cg$

$df := eg$ $\quad R_1 := \frac{bf}{df}$

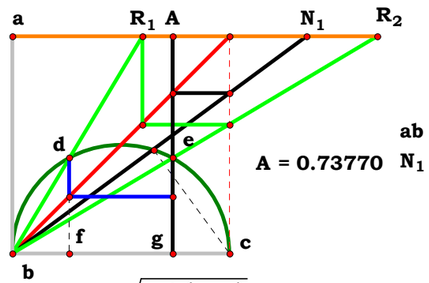
$R_2 := \frac{1}{R_1}$ $\quad R_1 = 0.596289$

Definitions.

$R_1 - \frac{\sqrt{N_1 - 1} \cdot \sqrt{N_1^2}}{N_1} = 0$

$N_1 - \frac{1}{A} = 0$

$R_1 - \frac{1 - A}{\sqrt{A - A^2}} = 0$ $\quad R_2 - \frac{\sqrt{A - A^2}}{1 - A} = 0$



$ab = 1.00000$

$A = 0.73770$

$N_1 = 1.35556$

$R_1 = 0.59629$

$\frac{\sqrt{N_1^2 \cdot (N_1 - 1)}}{N_1} = 0.59629$

$\frac{1-A}{\sqrt{A-A^2}} = 0.59629$

$R_1 - \frac{\sqrt{N_1^2 \cdot (N_1 - 1)}}{N_1} = 0.00000$

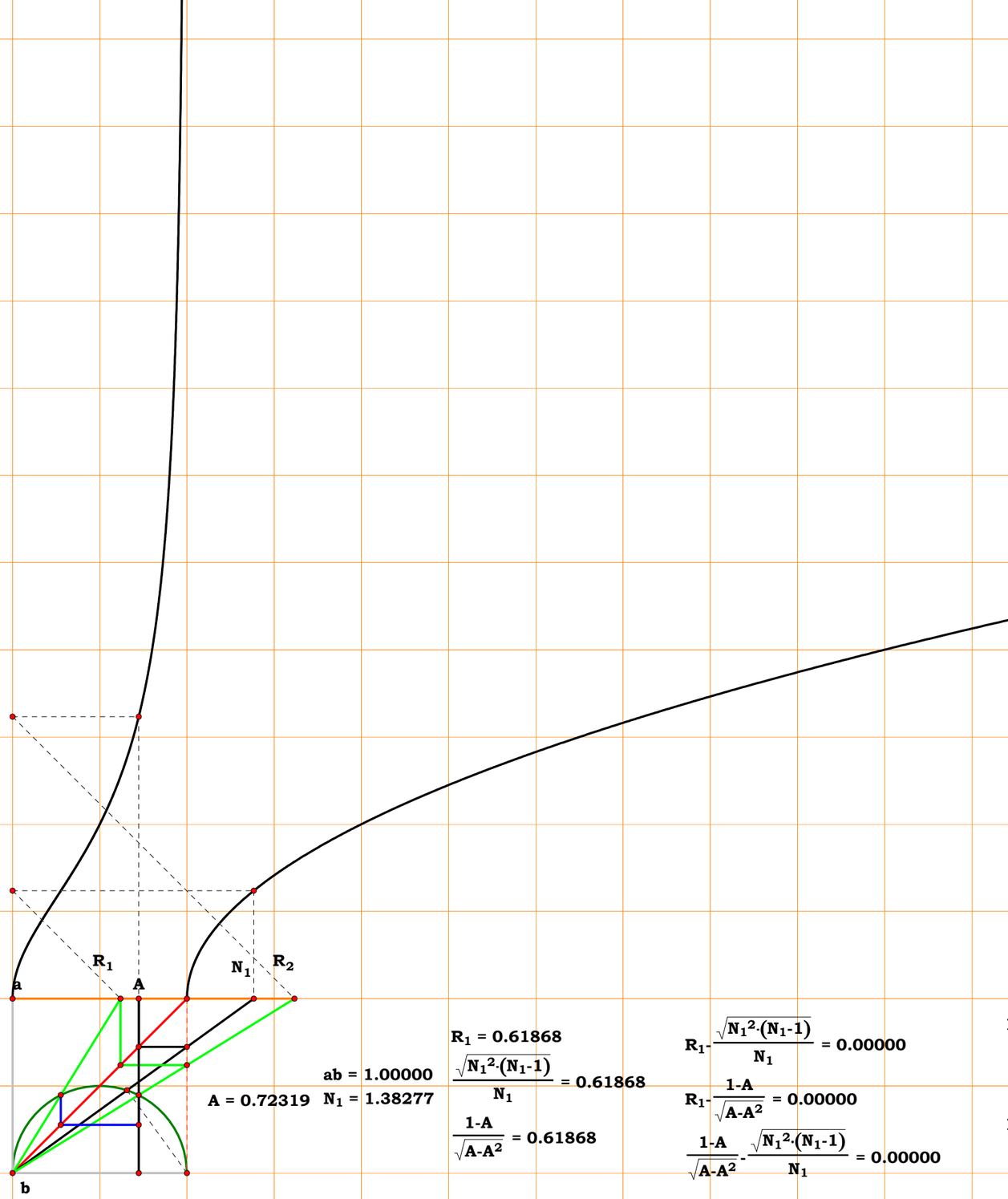
$R_1 - \frac{1-A}{\sqrt{A-A^2}} = 0.00000$

$\frac{1-A}{\sqrt{A-A^2}} - \frac{\sqrt{N_1^2 \cdot (N_1 - 1)}}{N_1} = 0.00000$

$R_2 = 1.67704$

$\frac{\sqrt{A-A^2}}{1-A} = 1.67704$

$R_2 - \frac{\sqrt{A-A^2}}{1-A} = 0.00000$



$ab = 1.00000$

$A = 0.72319$

$N_1 = 1.38277$

$R_1 = 0.61868$

$\frac{\sqrt{N_1^2 \cdot (N_1 - 1)}}{N_1} = 0.61868$

$\frac{1-A}{\sqrt{A-A^2}} = 0.61868$

$R_1 - \frac{\sqrt{N_1^2 \cdot (N_1 - 1)}}{N_1} = 0.00000$

$R_1 - \frac{1-A}{\sqrt{A-A^2}} = 0.00000$

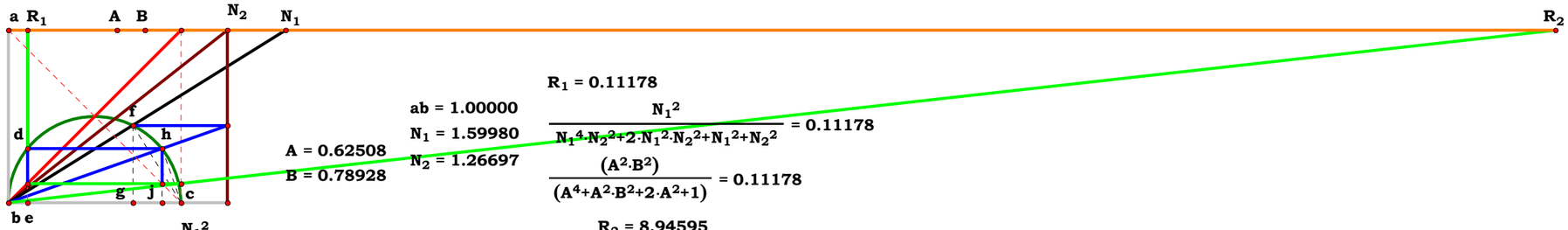
$\frac{1-A}{\sqrt{A-A^2}} - \frac{\sqrt{N_1^2 \cdot (N_1 - 1)}}{N_1} = 0.00000$

$R_2 = 1.61634$

$\frac{\sqrt{A-A^2}}{1-A} = 1.61634$

$R_2 - \frac{\sqrt{A-A^2}}{1-A} = 0.00000$

3OBT02R0



Given.

Unit. $ab := 1$

$N_1 := 1.59980 \quad N_2 := 1.26697$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2}$

$A = 0.62508$

$B = 0.78928$

$ab = 1.00000$

$N_1 = 1.59980$

$N_2 = 1.26697$

$R_1 = 0.11178$

$R_2 = 8.94595$

$R_1 - \frac{N_1^2}{N_1^4 \cdot N_2^2 + 2 \cdot N_1^2 \cdot N_2^2 + N_1^2 + N_2^2} = 0.00000$

$\frac{N_1^2}{N_1^4 \cdot N_2^2 + 2 \cdot N_1^2 \cdot N_2^2 + N_1^2 + N_2^2} = 0.11178$

$R_1 - \frac{(A^2 \cdot B^2)}{(A^4 + A^2 \cdot B^2 + 2 \cdot A^2 + 1)} = 0.00000$

$\frac{(A^2 \cdot B^2)}{(A^4 + A^2 \cdot B^2 + 2 \cdot A^2 + 1)} = 0.11178$

$\frac{(A^2 \cdot B^2)}{(A^4 + A^2 \cdot B^2 + 2 \cdot A^2 + 1)} - \frac{N_1^2}{N_1^4 \cdot N_2^2 + 2 \cdot N_1^2 \cdot N_2^2 + N_1^2 + N_2^2} = 0.00000$

$\frac{(A^4 + A^2 \cdot B^2 + 2 \cdot A^2 + 1)}{(A^2 \cdot B^2)} = 8.94595$

$R_2 - \frac{(A^4 + A^2 \cdot B^2 + 2 \cdot A^2 + 1)}{(A^2 \cdot B^2)} = 0.00000$

Descriptions.

$bN_1 := \sqrt{1 + N_1^2} \quad bf := \frac{N_1}{bN_1} \quad fg := \frac{bf}{bN_1}$

$bk := \sqrt{fg^2 + N_2^2} \quad bh := \frac{N_2}{bk} \quad bj := \frac{N_2 \cdot bh}{bk}$

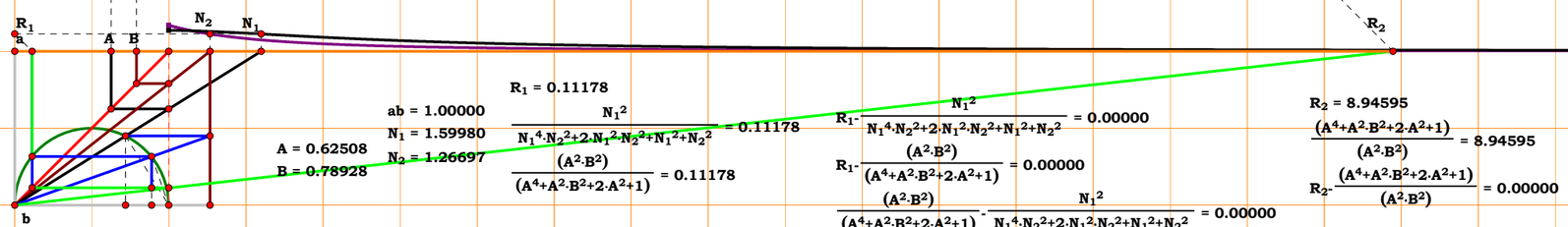
$R_1 := 1 - bj \quad R_2 := \frac{1}{R_1} \quad R_1 = 0.111783$

Definitions.

$R_1 - \frac{N_1^2}{N_1^4 \cdot N_2^2 + 2 \cdot N_1^2 \cdot N_2^2 + N_1^2 + N_2^2} = 0$

$N_1 - \frac{1}{A} = 0 \quad N_2 - \frac{1}{B} = 0$

$R_1 - \frac{A^2 \cdot B^2}{A^4 + A^2 \cdot B^2 + 2 \cdot A^2 + 1} = 0 \quad R_2 - \frac{A^4 + A^2 \cdot B^2 + (2 \cdot A^2 + 1)}{A^2 \cdot B^2} = 0$



ab = 1.00000
N1 = 1.59980
N2 = 1.26697

A = 0.62508
B = 0.78928

$R_1 = 0.11178$

$$\frac{N_1^2}{N_1^4 \cdot N_2^2 + 2 \cdot N_1^2 \cdot N_2^2 + N_1^2 + N_2^2} = 0.11178$$

$$\frac{(A^2 \cdot B^2)}{(A^4 + A^2 \cdot B^2 + 2 \cdot A^2 + 1)} = 0.11178$$

$$R_1 - \frac{N_1^2}{N_1^4 \cdot N_2^2 + 2 \cdot N_1^2 \cdot N_2^2 + N_1^2 + N_2^2} = 0.00000$$

$$R_1 - \frac{(A^2 \cdot B^2)}{(A^4 + A^2 \cdot B^2 + 2 \cdot A^2 + 1)} = 0.00000$$

$$\frac{(A^2 \cdot B^2)}{(A^4 + A^2 \cdot B^2 + 2 \cdot A^2 + 1)} - \frac{N_1^2}{N_1^4 \cdot N_2^2 + 2 \cdot N_1^2 \cdot N_2^2 + N_1^2 + N_2^2} = 0.00000$$

$R_2 = 8.94595$

$$\frac{(A^4 + A^2 \cdot B^2 + 2 \cdot A^2 + 1)}{(A^2 \cdot B^2)} = 8.94595$$

$$R_2 - \frac{(A^4 + A^2 \cdot B^2 + 2 \cdot A^2 + 1)}{(A^2 \cdot B^2)} = 0.00000$$

3OBT2R1

Given.

Unit. $ab := 1$

$N_1 := 1.44132 \quad N_2 := 1.09342$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2}$

Descriptions.

$bN_1 := \sqrt{N_1^2 + 1} \quad bf := \frac{N_1}{bN_1} \quad fh := \frac{bf}{bN_1}$

$bp := \frac{N_2}{1 - fh} \quad bk := \frac{N_1 \cdot bp}{N_1 + bp}$

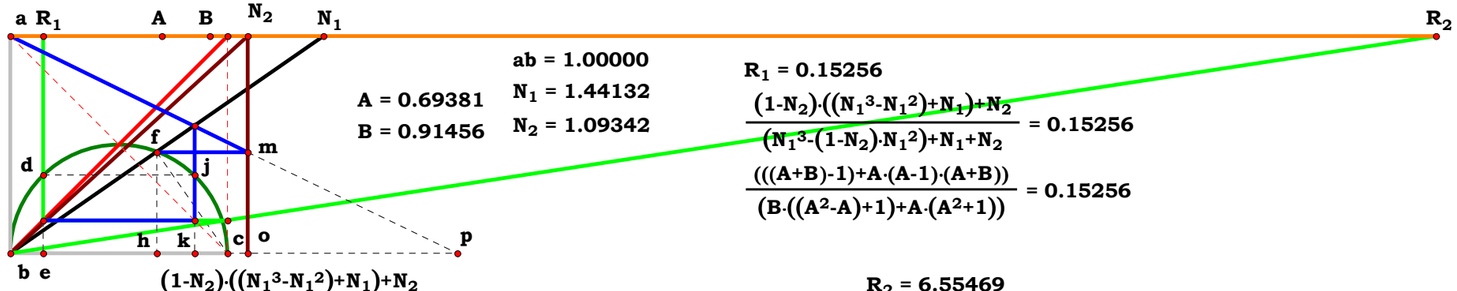
$R_1 := (1 - bk) \quad R_2 := \frac{1}{R_1} \quad R_1 = 0.152564$

Definitions.

$$R_1 - \frac{\left(1 - N_2\right) \cdot \left(N_1^3 - N_1^2 + N_1\right) + N_2}{N_1^3 - \left(1 - N_2\right) \cdot N_1^2 + N_1 + N_2} = 0$$

$N_1 - \frac{1}{A} = 0 \quad N_2 - \frac{1}{B} = 0$

$$R_1 - \frac{(A + B) - 1 + A \cdot (A - 1) \cdot (A + B)}{B \cdot \left(A^2 - A + 1\right) + A \cdot \left(A^2 + 1\right)} = 0 \quad R_2 - \frac{B \cdot \left(A^2 - A + 1\right) + A \cdot \left(A^2 + 1\right)}{(A + B) - 1 + A \cdot (A - 1) \cdot (A + B)} = 0$$



ab = 1.00000
A = 0.69381
B = 0.91456
N1 = 1.44132
N2 = 1.09342

$R_1 = 0.15256$

$$\frac{(1-N_2)\cdot((N_1^3-N_1^2)+N_1)+N_2}{(N_1^3-(1-N_2)\cdot N_1^2)+N_1+N_2} = 0.15256$$

$$\frac{(((A+B)-1)+A\cdot(A-1)\cdot(A+B))}{(B\cdot((A^2-A)+1)+A\cdot(A^2+1))} = 0.15256$$

$$R_1 - \frac{(1-N_2)\cdot((N_1^3-N_1^2)+N_1)+N_2}{(N_1^3-(1-N_2)\cdot N_1^2)+N_1+N_2} = 0.00000$$

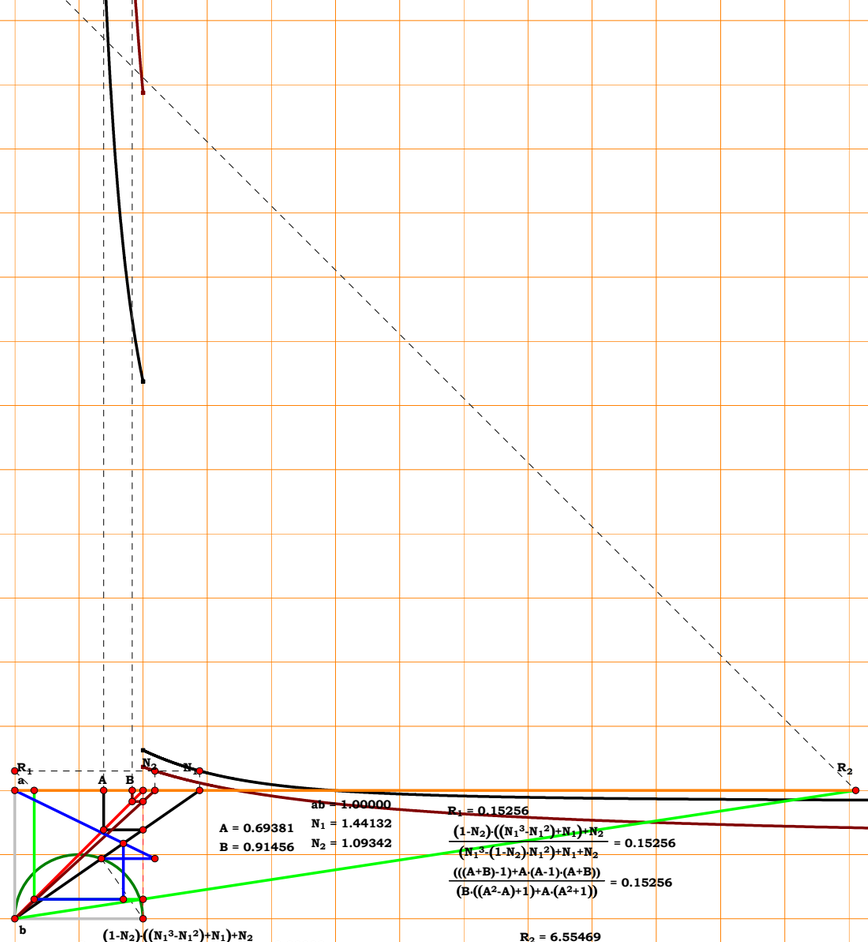
$$R_1 - \frac{(((A+B)-1)+A\cdot(A-1)\cdot(A+B))}{(B\cdot((A^2-A)+1)+A\cdot(A^2+1))} = 0.00000$$

$$\frac{(((A+B)-1)+A\cdot(A-1)\cdot(A+B))}{(B\cdot((A^2-A)+1)+A\cdot(A^2+1))} - \frac{(1-N_2)\cdot((N_1^3-N_1^2)+N_1)+N_2}{(N_1^3-(1-N_2)\cdot N_1^2)+N_1+N_2} = 0.00000$$

$R_2 = 6.55469$

$$\frac{(B\cdot((A^2-A)+1)+A\cdot(A^2+1))}{(((A+B)-1)+A\cdot(A-1)\cdot(A+B))} = 6.55469$$

$$R_2 - \frac{(B\cdot((A^2-A)+1)+A\cdot(A^2+1))}{(((A+B)-1)+A\cdot(A-1)\cdot(A+B))} = 0.00000$$



ab = 1.00000

A = 0.69381 N_1 = 1.44132

B = 0.91456 N_2 = 1.09342

R_1 = 0.15256

$$\frac{(1-N_2)\cdot((N_1^3-N_1^2)+N_1)+N_2}{(N_1^3-(1-N_2)\cdot N_1^2)+N_1+N_2} = 0.15256$$

$$\frac{(((A+B)-1)+A\cdot(A-1)\cdot(A+B))}{(B\cdot((A^2-A)+1)+A\cdot(A^2+1))} = 0.15256$$

R_1-

$$\frac{(1-N_2)\cdot((N_1^3-N_1^2)+N_1)+N_2}{(N_1^3-(1-N_2)\cdot N_1^2)+N_1+N_2} = 0.00000$$

R_1-

$$\frac{(((A+B)-1)+A\cdot(A-1)\cdot(A+B))}{(B\cdot((A^2-A)+1)+A\cdot(A^2+1))} = 0.00000$$

$$\frac{(((A+B)-1)+A\cdot(A-1)\cdot(A+B))}{(B\cdot((A^2-A)+1)+A\cdot(A^2+1))} - \frac{(1-N_2)\cdot((N_1^3-N_1^2)+N_1)+N_2}{(N_1^3-(1-N_2)\cdot N_1^2)+N_1+N_2} = 0.00000$$

R_2 = 6.55469

$$\frac{(B\cdot((A^2-A)+1)+A\cdot(A^2+1))}{(((A+B)-1)+A\cdot(A-1)\cdot(A+B))} = 6.55469$$

R_2-

$$\frac{(B\cdot((A^2-A)+1)+A\cdot(A^2+1))}{(((A+B)-1)+A\cdot(A-1)\cdot(A+B))} = 0.00000$$

3OBT02R2

Given.

Unit. $ab := 1$

$N_1 := 1.81525 \quad N_2 := 2.42826$

$$A := \frac{1}{N_1} \quad B := \frac{1}{N_2}$$

Descriptions.

$$bN_1 := \sqrt{1 + N_1^{\,2}} \quad bd := \frac{N_1}{bN_1} \quad de := \frac{bd}{bN_1}$$

$$bj := \frac{N_2}{1 - de} \quad R_1 := \frac{N_1 \cdot bj}{N_1 + bj}$$

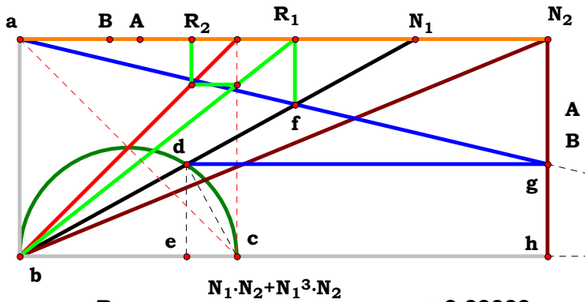
$$R_2 := \frac{1}{R_1} \quad R_1 = 1.267974$$

Definitions.

$$R_1 - \frac{N_1 \cdot N_2 + N_1^{\,3} \cdot N_2}{N_1 + N_1^{\,3} - N_1^{\,2} + N_2 + N_1^{\,2} \cdot N_2} = 0$$

$$N_1 - \frac{1}{A} = 0 \quad N_2 - \frac{1}{B} = 0$$

$$R_1 - \frac{\left(A^2 + 1\right)}{\left(A^2 + 1\right) \cdot (A + B) - A \cdot B} = 0 \quad R_2 - \frac{\left(A^2 + 1\right) \cdot (A + B) - A \cdot B}{\left(A^2 + 1\right)} = 0$$



A = 0.55089
B = 0.41182

ab = 1.00000
N_1 = 1.81525
N_2 = 2.42826

$R_1 = 1.26797$

$$\frac{N_1 \cdot N_2 + N_1^{\,3} \cdot N_2}{((N_1 + N_1^{\,3}) - N_1^{\,2}) + N_2 + N_1^{\,2} \cdot N_2} = 1.26797$$

$$\frac{(A^2+1)}{((A^2+1)\cdot(A+B) - A\cdot B)} = 1.26797$$

$$R_1 - \frac{N_1 \cdot N_2 + N_1^{\,3} \cdot N_2}{((N_1 + N_1^{\,3}) - N_1^{\,2}) + N_2 + N_1^{\,2} \cdot N_2} = 0.00000$$

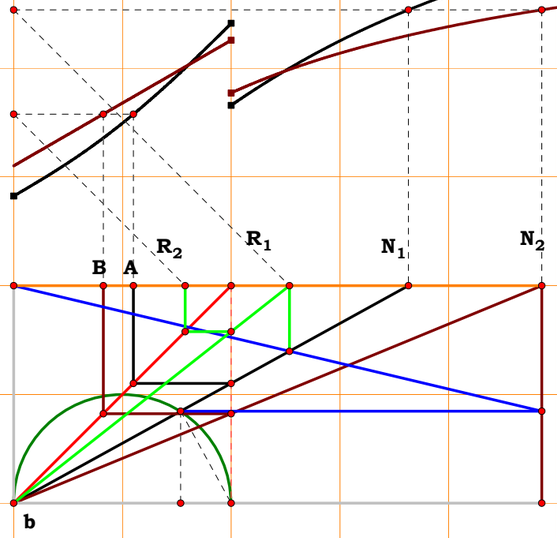
$$R_1 - \frac{(A^2+1)}{((A^2+1)\cdot(A+B) - A\cdot B)} = 0.00000$$

$$\frac{(A^2+1)}{((A^2+1)\cdot(A+B) - A\cdot B)} - \frac{N_1 \cdot N_2 + N_1^{\,3} \cdot N_2}{((N_1 + N_1^{\,3}) - N_1^{\,2}) + N_2 + N_1^{\,2} \cdot N_2} = 0.00000$$

$R_2 = 0.78866$

$$\frac{((A^2+1)\cdot(A+B) - A\cdot B)}{(A^2+1)} = 0.78866$$

$$R_2 - \frac{((A^2+1)\cdot(A+B) - A\cdot B)}{(A^2+1)} = 0.00000$$



A = 0.55089

B = 0.41182

ab = 1.00000

$N_1 = 1.81525$

$N_2 = 2.42826$

$R_1 = 1.26797$

$$\frac{N_1 \cdot N_2 + N_1^3 \cdot N_2}{((N_1 + N_1^3) - N_1^2) + N_2 + N_1^2 \cdot N_2} = 1.26797$$

$$\frac{(A^2+1)}{((A^2+1)\cdot(A+B) - A\cdot B)} = 1.26797$$

$$R_1 - \frac{N_1 \cdot N_2 + N_1^3 \cdot N_2}{((N_1 + N_1^3) - N_1^2) + N_2 + N_1^2 \cdot N_2} = 0.00000$$

$$R_1 - \frac{(A^2+1)}{((A^2+1)\cdot(A+B) - A\cdot B)} = 0.00000$$

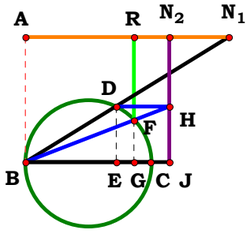
$$\frac{(A^2+1)}{((A^2+1)\cdot(A+B) - A\cdot B)} - \frac{N_1 \cdot N_2 + N_1^3 \cdot N_2}{((N_1 + N_1^3) - N_1^2) + N_2 + N_1^2 \cdot N_2} = 0.00000$$

$R_2 = 0.78866$

$$\frac{((A^2+1)\cdot(A+B) - A\cdot B)}{(A^2+1)} = 0.78866$$

$$R_2 - \frac{((A^2+1)\cdot(A+B) - A\cdot B)}{(A^2+1)} = 0.00000$$

3OBT2R3



$N_1 = 1.62626$

$N_2 = 1.15152$

$R = 0.86946$

Unit. $AB := 1$ Given. $N_1 := 1.62626$ $N_2 := 1.15152$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $Y := 20$ $Z := 19$ $p := \frac{Y}{N_1}$ $q := \frac{Z}{N_2}$

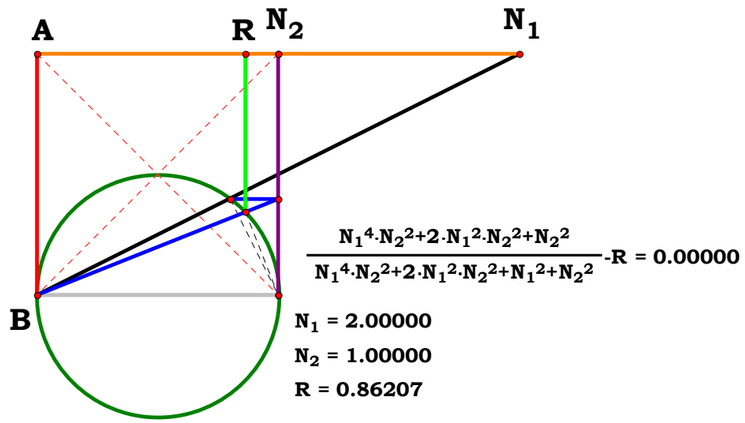
Descriptions.

$BN_1 := \sqrt{AB^2 + N_1^2}$ $BD := \frac{N_1 \cdot AB}{BN_1}$

$DE := \frac{AB \cdot BD}{BN_1}$ $BH := \sqrt{N_2^2 + DE^2}$

$BF := \frac{N_2 \cdot AB}{BH}$ $R := \frac{N_2 \cdot BF}{BH}$

$R = 0.869456$



$\frac{N_1^4 \cdot N_2^2 + 2 \cdot N_1^2 \cdot N_2^2 + N_2^2}{N_1^4 \cdot N_2^2 + 2 \cdot N_1^2 \cdot N_2^2 + N_1^2 + N_2^2} - R = 0.00000$

$N_1 = 2.00000$

$N_2 = 1.00000$

$R = 0.86207$

Definitions.

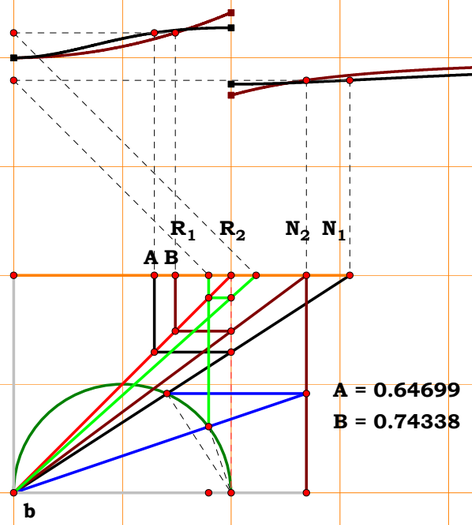
$$R - \frac{N_2^2 \cdot \left(N_1^2 + 1\right)^2}{N_1^4 \cdot N_2^2 + 2 \cdot N_1^2 \cdot N_2^2 + N_1^2 + N_2^2} = 0$$

$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$

$$R - \frac{\left(A^2 + N_u^2\right)^2}{A^4 + A^2 \cdot B^2 + 2 \cdot A^2 \cdot N_u^2 + N_u^4} = 0$$

$N_1 - \frac{Y}{p} = 0$ $N_2 - \frac{Z}{q} = 0$

$$R - \frac{Z^2 \cdot \left(Y^2 + p^2\right)^2}{Y^4 \cdot Z^2 + 2 \cdot Y^2 \cdot Z^2 \cdot p^2 + Y^2 \cdot p^2 \cdot q^2 + Z^2 \cdot p^4} = 0$$



A = 0.64699

B = 0.74338

ab = 1.00000

N_1 = 1.54561

N_2 = 1.34521

R_1 = 0.89690

$$\frac{N_2^2\cdot(N_1^2+1)^2}{N_1^4\cdot N_2^2+2\cdot N_1^2\cdot N_2^2+N_1^2+N_2^2} = 0.89690$$

$$\frac{(A^2+1)^2}{A^4+A^2\cdot B^2+2\cdot A^2+1} = 0.89690$$

$$R_1-\frac{N_2^2\cdot(N_1^2+1)^2}{N_1^4\cdot N_2^2+2\cdot N_1^2\cdot N_2^2+N_1^2+N_2^2} = 0.00000$$

$$R_1-\frac{(A^2+1)^2}{A^4+A^2\cdot B^2+2\cdot A^2+1} = 0.00000$$

$$\frac{(A^2+1)^2}{A^4+A^2\cdot B^2+2\cdot A^2+1}-\frac{N_2^2\cdot(N_1^2+1)^2}{N_1^4\cdot N_2^2+2\cdot N_1^2\cdot N_2^2+N_1^2+N_2^2} = 0.00000$$

R_2 = 1.11495

$$\frac{A^4+A^2\cdot B^2+2\cdot A^2+1}{(A^2+1)^2} = 1.11495$$

$$R_2-\frac{A^4+A^2\cdot B^2+2\cdot A^2+1}{(A^2+1)^2} = 0.00000$$

3OBT2R4

Given.

Unit. $ab := 1$

$N_1 := 2.20601 \quad N_2 := 1.39960$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2}$

Descriptions.

$bN_1 := \sqrt{1 + N_1^2} \qquad bd := \frac{N_1}{bN_1}$

$de := \frac{bd}{bN_1} \qquad bh := \sqrt{de^2 + N_2^2}$

$bf := \frac{N_2}{bh} \qquad fg := \frac{de \cdot bf}{bh} \qquad R_1 := \frac{N_2}{1 - fg}$

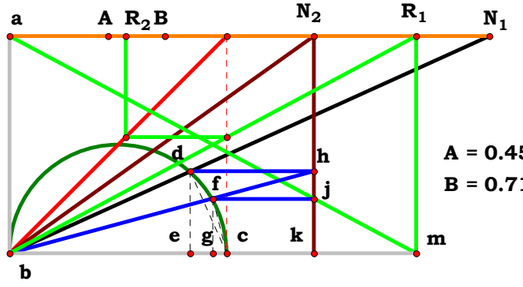
$R_2 := \frac{1}{R_1} \qquad R_1 = 1.867591$

Definitions.

$$R_1 - \frac{N_2^3 \cdot \left(N_1^2 + 1\right)^2 + N_1^2 \cdot N_2}{N_2 \cdot \left(N_1^2 + 1\right) \cdot \left(N_2 \cdot N_1^2 - N_1 + N_2\right) + N_1^2} = 0$$

$N_1 - \frac{1}{A} = 0 \qquad N_2 - \frac{1}{B} = 0$

$$R_1 - \frac{A^2 \cdot \left(A^2 + B^2\right) + \left(2 \cdot A^2 + 1\right)}{A^2 \cdot B^3 + B \cdot \left(A^2 + 1\right) \cdot \left(A^2 - B \cdot A + 1\right)} = 0 \qquad R_2 - \frac{A^2 \cdot B^3 + B \cdot \left(A^2 + 1\right) \cdot \left(A^2 - B \cdot A + 1\right)}{A^2 \cdot \left(A^2 + B^2\right) + \left(2 \cdot A^2 + 1\right)} = 0$$



$A = 0.45331$
$B = 0.71449$

$ab = 1.00000$
$N_1 = 2.20601$
$N_2 = 1.39960$

$R_1 = 1.86759$

$$\frac{N_2^3 \cdot (N_1^2+1)^2 + N_1^2 \cdot N_2}{N_2 \cdot (N_1^2+1) \cdot ((N_1^2 \cdot N_2 - N_1) + N_2) + N_1^2} = 1.86759$$

$$\frac{(A^2 \cdot (A^2+B^2) + 2 \cdot A^2 + 1)}{(A^2 \cdot B^3 + B \cdot (A^2+1) \cdot ((A^2 - A \cdot B) + 1))} = 1.86759$$

$$R_1 - \frac{N_2^3 \cdot (N_1^2+1)^2 + N_1^2 \cdot N_2}{N_2 \cdot (N_1^2+1) \cdot ((N_1^2 \cdot N_2 - N_1) + N_2) + N_1^2} = 0.00000$$

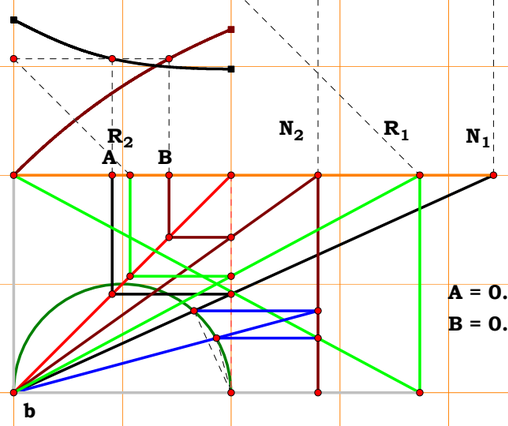
$$R_1 - \frac{(A^2 \cdot (A^2+B^2) + 2 \cdot A^2 + 1)}{(A^2 \cdot B^3 + B \cdot (A^2+1) \cdot ((A^2 - A \cdot B) + 1))} = 0.00000$$

$$\frac{(A^2 \cdot (A^2+B^2) + 2 \cdot A^2 + 1)}{(A^2 \cdot B^3 + B \cdot (A^2+1) \cdot ((A^2 - A \cdot B) + 1))} - \frac{N_2^3 \cdot (N_1^2+1)^2 + N_1^2 \cdot N_2}{N_2 \cdot (N_1^2+1) \cdot ((N_1^2 \cdot N_2 - N_1) + N_2) + N_1^2} = 0.00000$$

$R_2 = 0.53545$

$$\frac{(A^2 \cdot B^3 + B \cdot (A^2+1) \cdot ((A^2 - A \cdot B) + 1))}{(A^2 \cdot (A^2+B^2) + 2 \cdot A^2 + 1)} = 0.53545$$

$$R_2 - \frac{(A^2 \cdot B^3 + B \cdot (A^2+1) \cdot ((A^2 - A \cdot B) + 1))}{(A^2 \cdot (A^2+B^2) + 2 \cdot A^2 + 1)} = 0.00000$$



$A = 0.45331$
$B = 0.71449$

$ab = 1.00000$
$N_1 = 2.20601$
$N_2 = 1.39960$

$R_1 = 1.86759$

$$\frac{N_2^3\cdot(N_1^2+1)^2+N_1^2\cdot N_2}{N_2\cdot(N_1^2+1)\cdot((N_1^2\cdot N_2-N_1)+N_2)+N_1^2} = 1.86759$$

$$\frac{(A^2\cdot(A^2+B^2)+2\cdot A^2+1)}{(A^2\cdot B^3+B\cdot(A^2+1)\cdot((A^2-A\cdot B)+1))} = 1.86759$$

$R_2 = 0.53545$

$$\frac{(A^2\cdot B^3+B\cdot(A^2+1)\cdot((A^2-A\cdot B)+1))}{(A^2\cdot(A^2+B^2)+2\cdot A^2+1)} = 0.53545$$

$$R_2-\frac{(A^2\cdot B^3+B\cdot(A^2+1)\cdot((A^2-A\cdot B)+1))}{(A^2\cdot(A^2+B^2)+2\cdot A^2+1)} = 0.00000$$

$$R_1-\frac{N_2^3\cdot(N_1^2+1)^2+N_1^2\cdot N_2}{N_2\cdot(N_1^2+1)\cdot((N_1^2\cdot N_2-N_1)+N_2)+N_1^2} = 0.00000$$

$$R_1-\frac{(A^2\cdot(A^2+B^2)+2\cdot A^2+1)}{(A^2\cdot B^3+B\cdot(A^2+1)\cdot((A^2-A\cdot B)+1))} = 0.00000$$

$$\frac{(A^2\cdot(A^2+B^2)+2\cdot A^2+1)}{(A^2\cdot B^3+B\cdot(A^2+1)\cdot((A^2-A\cdot B)+1))}-\frac{N_2^3\cdot(N_1^2+1)^2+N_1^2\cdot N_2}{N_2\cdot(N_1^2+1)\cdot((N_1^2\cdot N_2-N_1)+N_2)+N_1^2} = 0.00000$$

3OBT2R5

Given.

Unit. $ab := 1$

$N_1 := 1.44444 \quad N_2 := 1.20202$

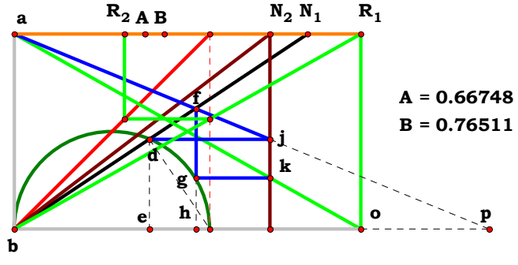
$A := \frac{1}{N_1} \quad B := \frac{1}{N_2}$

Descriptions.

$bN_1 := \sqrt{1 + N_1^2} \quad bd := \frac{N_1}{bN_1} \quad de := \frac{bd}{bN_1}$

$bp := \frac{N_2}{1 - de} \quad bh := \frac{N_1 \cdot bp}{N_1 + bp} \quad gh := \sqrt{bh \cdot (1 - bh)}$

$R_1 := \frac{N_2}{1 - gh} \quad R_2 := \frac{1}{R_1} \quad R_1 = 1.777157$



A = 0.66748
B = 0.76511

ab = 1.00000
N1 = 1.49818
N2 = 1.30701

$R_1 = 1.76838$

$$\frac{(N_2\cdot(((N_1+N_2+N_1^2\cdot N_2)-N_1^2)+N_1^3))}{((((N_1+N_2+N_1^2\cdot N_2)-N_1^2)+N_1^3)-\sqrt{N_1\cdot N_2\cdot(N_1^2+1)\cdot((((N_1+N_2+N_1^2\cdot N_2)-N_1^3\cdot N_2-N_1^2)+N_1^3)-N_1\cdot N_2)})} = 1.76838$$

$$\frac{(((A^3+A^2\cdot B+A)-A\cdot B)+B)}{(B\cdot((A^3+B\cdot((A^2-A)+1)+A)-\sqrt{(A+B)\cdot((A^4-A^3)+2\cdot A^2+1)-(2\cdot A^2+A\cdot B+1)}))} = 1.76838$$

$R_2 = 0.56549$

$$\frac{(B\cdot((A^3+B\cdot((A^2-A)+1)+A)-\sqrt{(A+B)\cdot((A^4-A^3)+2\cdot A^2+1)-(2\cdot A^2+A\cdot B+1)}))}{(((A^3+A^2\cdot B+A)-A\cdot B)+B)} = 0.56549$$

$$R_2-\frac{(B\cdot((A^3+B\cdot((A^2-A)+1)+A)-\sqrt{(A+B)\cdot((A^4-A^3)+2\cdot A^2+1)-(2\cdot A^2+A\cdot B+1)}))}{(((A^3+A^2\cdot B+A)-A\cdot B)+B)} = 0.00000$$

$$R_1-\frac{(N_2\cdot(((N_1+N_2+N_1^2\cdot N_2)-N_1^2)+N_1^3))}{((((N_1+N_2+N_1^2\cdot N_2)-N_1^2)+N_1^3)-\sqrt{N_1\cdot N_2\cdot(N_1^2+1)\cdot((((N_1+N_2+N_1^2\cdot N_2)-N_1^3\cdot N_2-N_1^2)+N_1^3)-N_1\cdot N_2)})} = 0.00000$$

$$R_1-\frac{(((A^3+A^2\cdot B+A)-A\cdot B)+B)}{(B\cdot((A^3+B\cdot((A^2-A)+1)+A)-\sqrt{(A+B)\cdot((A^4-A^3)+2\cdot A^2+1)-(2\cdot A^2+A\cdot B+1)}))} = 0.00000$$

$$\frac{(((A^3+A^2\cdot B+A)-A\cdot B)+B)}{(B\cdot((A^3+B\cdot((A^2-A)+1)+A)-\sqrt{(A+B)\cdot((A^4-A^3)+2\cdot A^2+1)-(2\cdot A^2+A\cdot B+1)}))}-\frac{(N_2\cdot(((N_1+N_2+N_1^2\cdot N_2)-N_1^2)+N_1^3))}{((((N_1+N_2+N_1^2\cdot N_2)-N_1^2)+N_1^3)-\sqrt{N_1\cdot N_2\cdot(N_1^2+1)\cdot((((N_1+N_2+N_1^2\cdot N_2)-N_1^3\cdot N_2-N_1^2)+N_1^3)-N_1\cdot N_2)})} = 0.00000$$

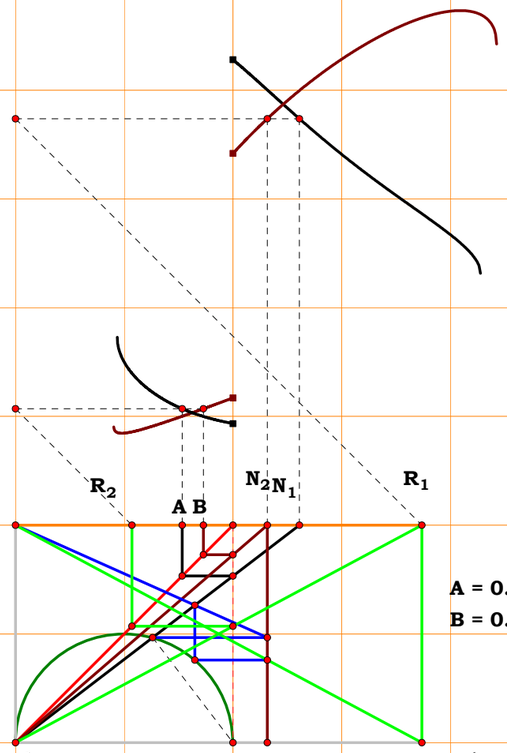
Definitions.

$$R_1 - \frac{N_2\cdot\left(N_1+N_2+N_1^{\,2}\cdot N_2-N_1^{\,2}+N_1^{\,3}\right)}{N_1+N_2+N_1^{\,2}\cdot N_2-N_1^{\,2}+N_1^{\,3}-\sqrt{N_1\cdot N_2\cdot\left(N_1^{\,2}+1\right)\cdot\left(N_1+N_2+N_1^{\,2}\cdot N_2-N_1^{\,3}\cdot N_2-N_1^{\,2}+N_1^{\,3}-N_1\cdot N_2\right)}} = 0$$

$N_1 - \frac{1}{A} = 0 \quad N_2 - \frac{1}{B} = 0$

$$R_1 - \frac{\left(A^3+B\cdot A^2+A-B\cdot A+B\right)}{B\cdot\left[A-\sqrt{(A+B)\cdot\left(A^4-A^3+2\cdot A^2+1\right)-\left(2\cdot A^2+B\cdot A+1\right)}+A^3+B\cdot\left(A^2-A+1\right)\right]} = 0$$

$$R_2 - \frac{B\cdot\left[A-\sqrt{(A+B)\cdot\left(A^4-A^3+2\cdot A^2+1\right)-\left(2\cdot A^2+B\cdot A+1\right)}+A^3+B\cdot\left(A^2-A+1\right)\right]}{\left(A^3+B\cdot A^2+A-B\cdot A+B\right)} = 0$$



A = 0.76617
B = 0.86380

ab = 1.00000
N_1 = 1.30519
N_2 = 1.15767

$R_1 = 1.86857$

$$\frac{(N_2\cdot(((N_1+N_2+N_1^2\cdot N_2)-N_1^2)+N_1^3))}{((((N_1+N_2+N_1^2\cdot N_2)-N_1^2)+N_1^3)-\sqrt{N_1\cdot N_2\cdot(N_1^2+1)\cdot((((N_1+N_2+N_1^2\cdot N_2)-N_1^3\cdot N_2-N_1^2)+N_1^3)-N_1\cdot N_2)})} = 1.86857$$

$$\frac{(((A^3+A^2\cdot B+A)-A\cdot B)+B)}{(B\cdot((A^3+B\cdot((A^2-A)+1)+A)-\sqrt{(A+B)\cdot((A^4-A^3)+2\cdot A^2+1)-(2\cdot A^2+A\cdot B+1)}))} = 1.86857$$

$R_2 = 0.53517$

$$\frac{(B\cdot((A^3+B\cdot((A^2-A)+1)+A)-\sqrt{(A+B)\cdot((A^4-A^3)+2\cdot A^2+1)-(2\cdot A^2+A\cdot B+1)}))}{(((A^3+A^2\cdot B+A)-A\cdot B)+B)} = 0.53517$$

$$R_2-\frac{(B\cdot((A^3+B\cdot((A^2-A)+1)+A)-\sqrt{(A+B)\cdot((A^4-A^3)+2\cdot A^2+1)-(2\cdot A^2+A\cdot B+1)}))}{(((A^3+A^2\cdot B+A)-A\cdot B)+B)} = 0.00000$$

$$R_1-\frac{(N_2\cdot(((N_1+N_2+N_1^2\cdot N_2)-N_1^2)+N_1^3))}{((((N_1+N_2+N_1^2\cdot N_2)-N_1^2)+N_1^3)-\sqrt{N_1\cdot N_2\cdot(N_1^2+1)\cdot((((N_1+N_2+N_1^2\cdot N_2)-N_1^3\cdot N_2-N_1^2)+N_1^3)-N_1\cdot N_2)})} = 0.00000$$

$$R_1-\frac{(((A^3+A^2\cdot B+A)-A\cdot B)+B)}{(B\cdot((A^3+B\cdot((A^2-A)+1)+A)-\sqrt{(A+B)\cdot((A^4-A^3)+2\cdot A^2+1)-(2\cdot A^2+A\cdot B+1)}))} = 0.00000$$

$$\frac{(((A^3+A^2\cdot B+A)-A\cdot B)+B)}{(B\cdot((A^3+B\cdot((A^2-A)+1)+A)-\sqrt{(A+B)\cdot((A^4-A^3)+2\cdot A^2+1)-(2\cdot A^2+A\cdot B+1)}))}-\frac{(N_2\cdot(((N_1+N_2+N_1^2\cdot N_2)-N_1^2)+N_1^3))}{((((N_1+N_2+N_1^2\cdot N_2)-N_1^2)+N_1^3)-\sqrt{N_1\cdot N_2\cdot(N_1^2+1)\cdot((((N_1+N_2+N_1^2\cdot N_2)-N_1^3\cdot N_2-N_1^2)+N_1^3)-N_1\cdot N_2)})} = 0.00000$$

3OBT2R6

Given.

Unit. $ab := 1$

$N_1 := 1.23233 \quad N_2 := 1.42174$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2}$

Descriptions.

$bN_1 := \sqrt{1 + N_1^2} \quad bd := \frac{N_1}{bN_1} \quad de := \frac{bd}{bN_1}$

$bm := \frac{N_2}{1 - de} \quad bh := \frac{N_1 \cdot bm}{N_1 + bm} \quad gh := \sqrt{bh \cdot (1 - bh)}$

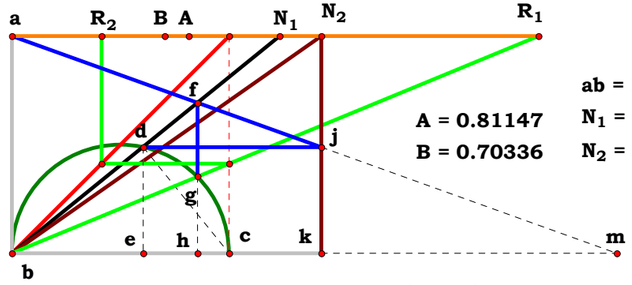
$R_1 := \frac{bh}{gh} \quad R_2 := \frac{1}{R_1} \quad R_1 = 2.420452$

Definitions.

$$R_1 - \frac{N_1 \cdot N_2 \cdot \left(N_1^2 + 1\right)}{\sqrt{N_1 \cdot N_2 \cdot \left(N_1^2 + 1\right) \cdot \left(N_1 + N_2 + N_1^2 \cdot N_2 - N_1^3 \cdot N_2 - N_1^2 + N_1^3 - N_1 \cdot N_2\right)}} = 0$$

$N_1 - \frac{1}{A} = 0 \quad N_2 - \frac{1}{B} = 0$

$$R_1 - \frac{\left(A^2 + 1\right)}{\sqrt{\left(A^2 + 1\right) \cdot \left[\left(A^2 - A + 1\right) \cdot (A + B) - 1\right]}} = 0 \qquad R_2 - \frac{\sqrt{\left(A^2 + 1\right) \cdot \left[\left(A^2 - A + 1\right) \cdot (A + B) - 1\right]}}{\left(A^2 + 1\right)} = 0$$



ab = 1.00000
N1 = 1.23233
N2 = 1.42174
A = 0.81147
B = 0.70336

$R_1 = 2.42046$

$$\frac{N_1 \cdot N_2 \cdot (N_1^2+1)}{\sqrt{N_1 \cdot N_2 \cdot (N_1^2+1) \cdot ((((N_1+N_2+N_1^2 \cdot N_2)-N_1^3 \cdot N_2-N_1^2)+N_1^3)-N_1 \cdot N_2)}} = 2.42046$$

$$\frac{(A^2+1)}{\sqrt{(A^2+1) \cdot (((A^2-A)+1) \cdot (A+B)-1)}} = 2.42046$$

$$R_1 - \frac{N_1 \cdot N_2 \cdot (N_1^2+1)}{\sqrt{N_1 \cdot N_2 \cdot (N_1^2+1) \cdot ((((N_1+N_2+N_1^2 \cdot N_2)-N_1^3 \cdot N_2-N_1^2)+N_1^3)-N_1 \cdot N_2)}} = 0.00000$$

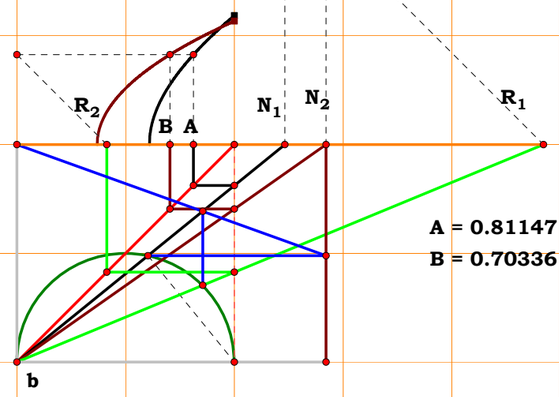
$$R_1 - \frac{(A^2+1)}{\sqrt{(A^2+1) \cdot (((A^2-A)+1) \cdot (A+B)-1)}} = 0.00000$$

$$\frac{(A^2+1)}{\sqrt{(A^2+1) \cdot (((A^2-A)+1) \cdot (A+B)-1)}} - \frac{N_1 \cdot N_2 \cdot (N_1^2+1)}{\sqrt{N_1 \cdot N_2 \cdot (N_1^2+1) \cdot ((((N_1+N_2+N_1^2 \cdot N_2)-N_1^3 \cdot N_2-N_1^2)+N_1^3)-N_1 \cdot N_2)}} = 0.00000$$

$R_2 = 0.41315$

$$\frac{\sqrt{(A^2+1) \cdot (((A^2-A)+1) \cdot (A+B)-1)}}{(A^2+1)} = 0.41315$$

$$R_2 - \frac{\sqrt{(A^2+1) \cdot (((A^2-A)+1) \cdot (A+B)-1)}}{(A^2+1)} = 0.00000$$



$A = 0.81147$

$B = 0.70336$

$ab = 1.00000$

$N_1 = 1.23233$

$N_2 = 1.42174$

$$R_1 - \frac{N_1 \cdot N_2 \cdot (N_1^2+1)}{\sqrt{N_1 \cdot N_2 \cdot (N_1^2+1) \cdot ((((N_1+N_2+N_1^2 \cdot N_2)-N_1^3 \cdot N_2-N_1^2)+N_1^3)-N_1 \cdot N_2)}} = 0.00000$$

$$R_1 - \frac{(A^2+1)}{\sqrt{(A^2+1) \cdot (((A^2-A)+1) \cdot (A+B)-1)}} = 0.00000$$

$$\frac{(A^2+1)}{\sqrt{(A^2+1) \cdot (((A^2-A)+1) \cdot (A+B)-1)}} - \frac{N_1 \cdot N_2 \cdot (N_1^2+1)}{\sqrt{N_1 \cdot N_2 \cdot (N_1^2+1) \cdot ((((N_1+N_2+N_1^2 \cdot N_2)-N_1^3 \cdot N_2-N_1^2)+N_1^3)-N_1 \cdot N_2)}} = 0.00000$$

$R_1 = 2.42046$

$$\frac{N_1 \cdot N_2 \cdot (N_1^2+1)}{\sqrt{N_1 \cdot N_2 \cdot (N_1^2+1) \cdot ((((N_1+N_2+N_1^2 \cdot N_2)-N_1^3 \cdot N_2-N_1^2)+N_1^3)-N_1 \cdot N_2)}} = 2.42046$$

$$\frac{(A^2+1)}{\sqrt{(A^2+1) \cdot (((A^2-A)+1) \cdot (A+B)-1)}} = 2.42046$$

$R_2 = 0.41315$

$$\frac{\sqrt{(A^2+1) \cdot (((A^2-A)+1) \cdot (A+B)-1)}}{(A^2+1)} = 0.41315$$

$$R_2 - \frac{\sqrt{(A^2+1) \cdot (((A^2-A)+1) \cdot (A+B)-1)}}{(A^2+1)} = 0.00000$$

3OBT2R7

Given.

Unit. $ab := 1$

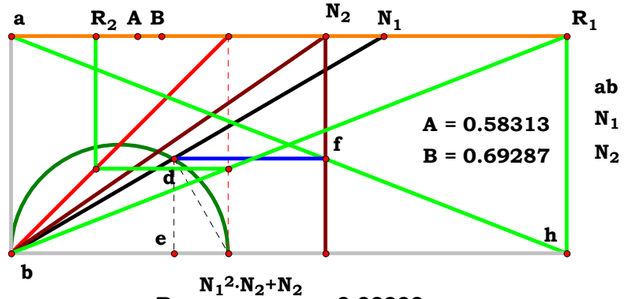
$N_1 := 1.71489 \quad N_2 := 1.44327$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2}$

Descriptions.

$bN_1 := \sqrt{1 + N_1^2} \quad bd := \frac{N_1}{bN_1} \quad de := \frac{bd}{bN_1}$

$R_1 := \frac{N_2}{1 - de} \quad R_2 := \frac{1}{R_1} \quad R_1 = 2.555173$



$ab = 1.00000$
$N_1 = 1.71489$
$N_2 = 1.44327$

$R_1 - \frac{N_1^2 \cdot N_2 + N_2}{(N_1^2 - N_1) + 1} = 0.00000$

$R_1 - \frac{A^2 + 1}{B \cdot ((A^2 - A) + 1)} = 0.00000$

$\frac{A^2 + 1}{B \cdot ((A^2 - A) + 1)} - \frac{N_1^2 \cdot N_2 + N_2}{(N_1^2 - N_1) + 1} = 0.00000$

$R_1 = 2.55518$

$\frac{N_1^2 \cdot N_2 + N_2}{(N_1^2 - N_1) + 1} = 2.55518$

$\frac{A^2 + 1}{B \cdot ((A^2 - A) + 1)} = 2.55518$

$R_2 = 0.39136$

$\frac{B \cdot ((A^2 - A) + 1)}{A^2 + 1} = 0.39136$

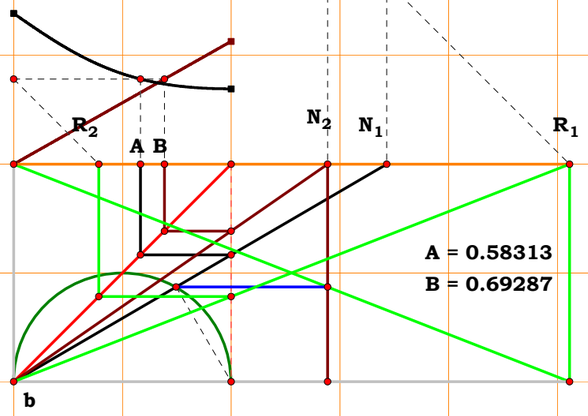
$R_2 - \frac{B \cdot ((A^2 - A) + 1)}{A^2 + 1} = 0.00000$

Definitions.

$R_1 - \frac{N_1^2 \cdot N_2 + N_2}{N_1^2 - N_1 + 1} = 0$

$N_1 - \frac{1}{A} = 0 \qquad N_2 - \frac{1}{B} = 0$

$R_1 - \frac{(A^2 + 1)}{B \cdot (A^2 - A + 1)} = 0 \qquad R_2 - \frac{B \cdot (A^2 - A + 1)}{(A^2 + 1)} = 0$



$ab = 1.00000$

$A = 0.58313$

$B = 0.69287$

$N_1 = 1.71489$

$N_2 = 1.44327$

$R_1 = 2.55518$

$$\frac{N_1^2 \cdot N_2 + N_2}{(N_1^2 - N_1) + 1} = 2.55518$$

$$\frac{A^2 + 1}{B \cdot ((A^2 - A) + 1)} = 2.55518$$

$$R_1 - \frac{N_1^2 \cdot N_2 + N_2}{(N_1^2 - N_1) + 1} = 0.00000$$

$$R_1 - \frac{A^2 + 1}{B \cdot ((A^2 - A) + 1)} = 0.00000$$

$$\frac{A^2 + 1}{B \cdot ((A^2 - A) + 1)} - \frac{N_1^2 \cdot N_2 + N_2}{(N_1^2 - N_1) + 1} = 0.00000$$

$R_2 = 0.39136$

$$\frac{B \cdot ((A^2 - A) + 1)}{A^2 + 1} = 0.39136$$

$$R_2 - \frac{B \cdot ((A^2 - A) + 1)}{A^2 + 1} = 0.00000$$

3OBT2R8

Given.

Unit. $ab := 1$

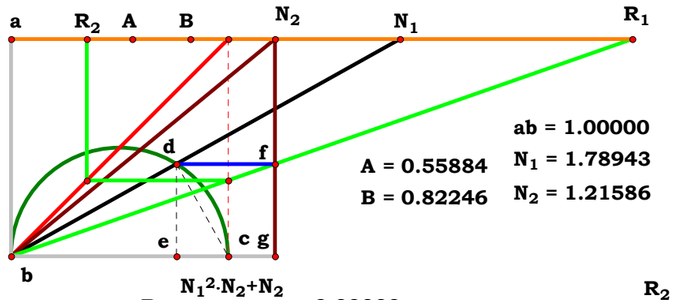
$N_1 := 1.78943 \quad N_2 := 1.21586$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2}$

Descriptions.

$bN_1 := \sqrt{1 + N_1^2} \quad bd := \frac{N_1}{bN_1} \quad de := \frac{bd}{bN_1}$

$R_1 := \frac{N_2}{de} \quad R_2 := \frac{1}{R_1} \quad R_1 = 2.855164$



$A = 0.55884$
$B = 0.82246$

$ab = 1.00000$
$N_1 = 1.78943$
$N_2 = 1.21586$

$R_1 = 2.85517$

$\frac{N_1^2 \cdot N_2 + N_2}{N_1} = 2.85517$

$\frac{(A^2+1)}{(A \cdot B)} = 2.85517$

$R_1 - \frac{N_1^2 \cdot N_2 + N_2}{N_1} = 0.00000$

$R_1 - \frac{(A^2+1)}{(A \cdot B)} = 0.00000$

$\frac{(A^2+1)}{(A \cdot B)} - \frac{N_1^2 \cdot N_2 + N_2}{N_1} = 0.00000$

$R_2 = 0.35024$

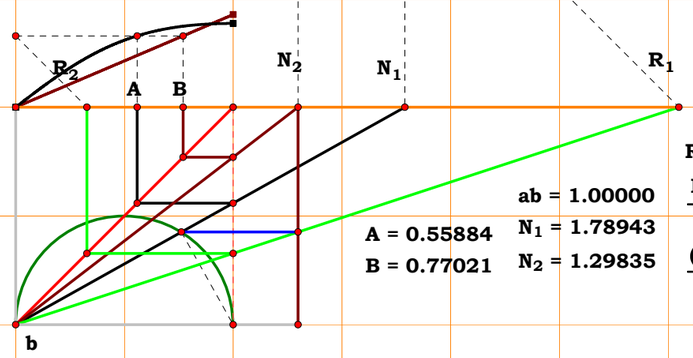
$\frac{(A \cdot B)}{(A^2+1)} = 0.35024$

Definitions.

$R_1 - \frac{N_1^2 \cdot N_2 + N_2}{N_1} = 0$

$N_1 - \frac{1}{A} = 0 \quad N_2 - \frac{1}{B} = 0$

$R_1 - \frac{A^2 + 1}{A \cdot B} = 0 \quad R_2 - \frac{A \cdot B}{A^2 + 1} = 0$



$A = 0.55884$

$B = 0.77021$

$ab = 1.00000$

$N_1 = 1.78943$

$N_2 = 1.29835$

$R_1 = 3.04886$

$\frac{N_1^2 \cdot N_2 + N_2}{N_1} = 3.04886$

$\frac{(A^2+1)}{(A \cdot B)} = 3.04886$

$R_1 - \frac{N_1^2 \cdot N_2 + N_2}{N_1} = 0.00000$

$R_1 - \frac{(A^2+1)}{(A \cdot B)} = 0.00000$

$\frac{(A^2+1)}{(A \cdot B)} - \frac{N_1^2 \cdot N_2 + N_2}{N_1} = 0.00000$

$R_2 = 0.32799$

$\frac{(A \cdot B)}{(A^2+1)} = 0.32799$

3OBT2R9

Given.

Unit. $ab := 1$

$N_1 := 1.13373 \quad N_2 := 1.34560$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2}$

Descriptions.

$bN_1 := \sqrt{1 + N_1^{\,2}} \quad bd := \frac{N_1}{bN_1} \quad de := \frac{bd}{bN_1}$

$bo := \frac{N_2}{1 - de} \quad bh := \frac{N_1 \cdot bo}{N_1 + bo} \quad gh := \sqrt{bh \cdot (1 - bh)}$

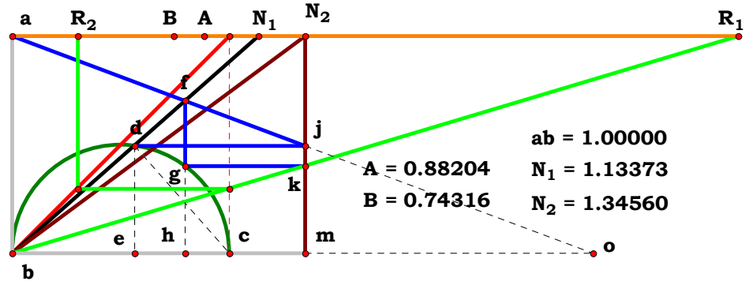
$R_1 := \frac{N_2}{gh} \quad R_2 := \frac{1}{R_1} \quad R_1 = 3.338244$

Definitions.

$$R_1 - \frac{\left(N_1^{\,2} + 1\right) \cdot N_2^{\,2} + \left(N_1^{\,3} - N_1^{\,2} + N_1\right) \cdot N_2}{\sqrt{N_1 \cdot N_2 \cdot \left(N_1^{\,2} + 1\right) \cdot \left[\left(1 - N_2\right) \cdot \left(N_1^{\,3} - N_1^{\,2} + N_1\right) + N_2\right]}} = 0$$

$N_1 - \frac{1}{A} = 0 \qquad N_2 - \frac{1}{B} = 0$

$$R_1 - \frac{\left(A^3 + B \cdot A^2 + A - B \cdot A + B\right)}{B \cdot \sqrt{\left(A^2 + 1\right) \cdot \left[A^3 + \left(A^2 - A + 1\right) \cdot (B - 1)\right]}} = 0 \qquad R_2 - \frac{B \cdot \sqrt{\left(A^2 + 1\right) \cdot \left[A^3 + \left(A^2 - A + 1\right) \cdot (B - 1)\right]}}{\left(A^3 + B \cdot A^2 + A - B \cdot A + B\right)} = 0$$



$$R_1 - \frac{(N_2^2 \cdot (N_1^2+1) + N_2 \cdot ((N_1^3 - N_1^2) + N_1))}{\sqrt{N_1 \cdot N_2 \cdot (N_1^2+1) \cdot ((1-N_2) \cdot ((N_1^3 - N_1^2) + N_1) + N_2)}} = 0.00000$$

$$R_1 - \frac{(((A^3 + A^2 \cdot B + A) - A \cdot B) + B)}{\left(B \cdot \sqrt{(A^2+1) \cdot (A^3 + ((A^2 - A) + 1) \cdot (B-1))}\right)} = 0.00000$$

$$\frac{(((A^3 + A^2 \cdot B + A) - A \cdot B) + B)}{\left(B \cdot \sqrt{(A^2+1) \cdot (A^3 + ((A^2 - A) + 1) \cdot (B-1))}\right)} - \frac{(N_2^2 \cdot (N_1^2+1) + N_2 \cdot ((N_1^3 - N_1^2) + N_1))}{\sqrt{N_1 \cdot N_2 \cdot (N_1^2+1) \cdot ((1-N_2) \cdot ((N_1^3 - N_1^2) + N_1) + N_2)}} = 0.00000$$

$R_1 = 3.33826$

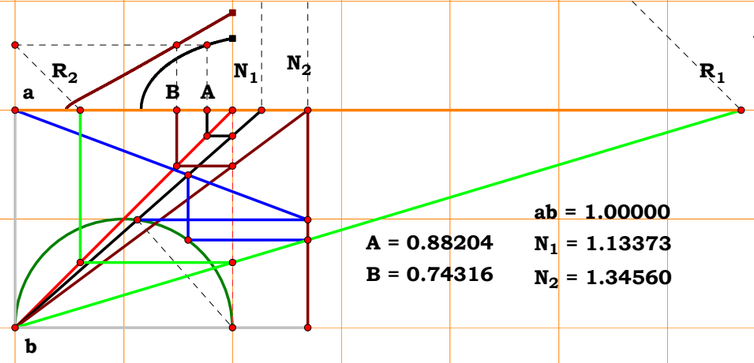
$$\frac{(N_2^2 \cdot (N_1^2+1) + N_2 \cdot ((N_1^3 - N_1^2) + N_1))}{\sqrt{N_1 \cdot N_2 \cdot (N_1^2+1) \cdot ((1-N_2) \cdot ((N_1^3 - N_1^2) + N_1) + N_2)}} = 3.33826$$

$$\frac{(((A^3 + A^2 \cdot B + A) - A \cdot B) + B)}{\left(B \cdot \sqrt{(A^2+1) \cdot (A^3 + ((A^2 - A) + 1) \cdot (B-1))}\right)} = 3.33826$$

$R_2 = 0.29956$

$$\frac{\left(B \cdot \sqrt{(A^2+1) \cdot (A^3 + ((A^2 - A) + 1) \cdot (B-1))}\right)}{(((A^3 + A^2 \cdot B + A) - A \cdot B) + B)} = 0.29956$$

$$R_2 - \frac{\left(B \cdot \sqrt{(A^2+1) \cdot (A^3 + ((A^2 - A) + 1) \cdot (B-1))}\right)}{(((A^3 + A^2 \cdot B + A) - A \cdot B) + B)} = 0.00000$$



ab = 1.00000

A = 0.88204 N_1 = 1.13373

B = 0.74316 N_2 = 1.34560

$$R_1 - \frac{(N_2^2\cdot(N_1^2+1)+N_2\cdot((N_1^3-N_1^2)+N_1))}{\sqrt{N_1\cdot N_2\cdot(N_1^2+1)\cdot((1-N_2)\cdot((N_1^3-N_1^2)+N_1)+N_2)}} = 0.00000$$

$$R_1 - \frac{(((A^3+A^2\cdot B+A)-A\cdot B)+B)}{(B\cdot\sqrt{(A^2+1)\cdot(A^3+((A^2-A)+1)\cdot(B-1))})} = 0.00000$$

$$\frac{(((A^3+A^2\cdot B+A)-A\cdot B)+B)}{(B\cdot\sqrt{(A^2+1)\cdot(A^3+((A^2-A)+1)\cdot(B-1))})} - \frac{(N_2^2\cdot(N_1^2+1)+N_2\cdot((N_1^3-N_1^2)+N_1))}{\sqrt{N_1\cdot N_2\cdot(N_1^2+1)\cdot((1-N_2)\cdot((N_1^3-N_1^2)+N_1)+N_2)}} = 0.00000$$

R_1 = 3.33826

$$\frac{(N_2^2\cdot(N_1^2+1)+N_2\cdot((N_1^3-N_1^2)+N_1))}{\sqrt{N_1\cdot N_2\cdot(N_1^2+1)\cdot((1-N_2)\cdot((N_1^3-N_1^2)+N_1)+N_2)}} = 3.33826$$

$$\frac{(((A^3+A^2\cdot B+A)-A\cdot B)+B)}{(B\cdot\sqrt{(A^2+1)\cdot(A^3+((A^2-A)+1)\cdot(B-1))})} = 3.33826$$

R_2 = 0.29956

$$\frac{(B\cdot\sqrt{(A^2+1)\cdot(A^3+((A^2-A)+1)\cdot(B-1))})}{(((A^3+A^2\cdot B+A)-A\cdot B)+B)} = 0.29956$$

$$R_2 - \frac{(B\cdot\sqrt{(A^2+1)\cdot(A^3+((A^2-A)+1)\cdot(B-1))})}{(((A^3+A^2\cdot B+A)-A\cdot B)+B)} = 0.00000$$

3OBT02R10

Given.

Unit. $ab := 1$

$N_1 := 1.95133 \quad N_2 := 1.36903$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2}$

Descriptions.

$bN_1 := \sqrt{1 + N_1^2} \quad bd := \frac{N_1}{bN_1} \quad de := \frac{bd}{bN_1}$

$bh := \sqrt{N_2^2 + de^2} \quad bf := \frac{N_2}{bh} \quad fg := \frac{de \cdot bf}{bh}$

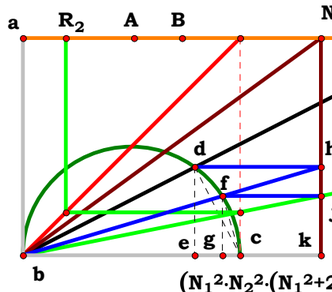
$R_1 := \frac{N_2}{fg} \quad R_2 := \frac{1}{R_1} \quad R_1 = 5.023639$

Definitions.

$$R_1 - \frac{N_1^2 \cdot N_2^2 \cdot \left(N_1^2 + 2\right) + N_1^2 + N_2^2}{N_1 \cdot \left(N_1^2 + 1\right)} = 0$$

$N_1 - \frac{1}{A} = 0 \qquad N_2 - \frac{1}{B} = 0$

$$R_1 - \frac{\left(2 \cdot A^2 + 1\right) + A^2 \cdot \left(A^2 + B^2\right)}{A \cdot B^2 \cdot \left(A^2 + 1\right)} = 0 \qquad R_2 - \frac{A \cdot B^2 \cdot \left(A^2 + 1\right)}{A^4 + A^2 \cdot B^2 + 2 \cdot A^2 + 1} = 0$$



ab = 1.00000

A = 0.51247 N_1 = 1.95133

B = 0.73044 N_2 = 1.36903

R_1 = 5.02368

$$\frac{\left(N_1^2 \cdot N_2^2 \cdot \left(N_1^2 + 2\right) + N_1^2 + N_2^2\right)}{\left(N_1 \cdot \left(N_1^2 + 1\right)\right)} = 5.02368$$

$$\frac{\left(2 \cdot A^2 + 1 + A^2 \cdot \left(A^2 + B^2\right)\right)}{\left(A \cdot B^2 \cdot \left(A^2 + 1\right)\right)} = 5.02368$$

R_2 = 0.19906

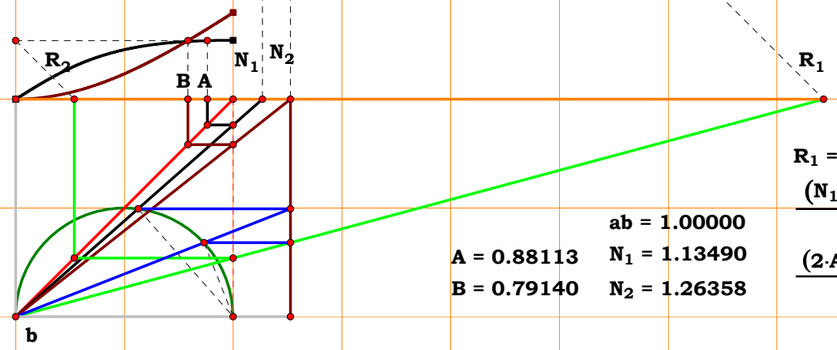
$$\frac{\left(A \cdot B^2 \cdot \left(A^2 + 1\right)\right)}{\left(2 \cdot A^2 + 1 + A^2 \cdot \left(A^2 + B^2\right)\right)} = 0.19906$$

$$R_2 - \frac{\left(A \cdot B^2 \cdot \left(A^2 + 1\right)\right)}{\left(2 \cdot A^2 + 1 + A^2 \cdot \left(A^2 + B^2\right)\right)} = 0.00000$$

$$R_1 - \frac{\left(N_1^2 \cdot N_2^2 \cdot \left(N_1^2 + 2\right) + N_1^2 + N_2^2\right)}{\left(N_1 \cdot \left(N_1^2 + 1\right)\right)} = 0.00000$$

$$R_1 - \frac{\left(2 \cdot A^2 + 1 + A^2 \cdot \left(A^2 + B^2\right)\right)}{\left(A \cdot B^2 \cdot \left(A^2 + 1\right)\right)} = 0.00000$$

$$\frac{\left(2 \cdot A^2 + 1 + A^2 \cdot \left(A^2 + B^2\right)\right)}{\left(A \cdot B^2 \cdot \left(A^2 + 1\right)\right)} - \frac{\left(N_1^2 \cdot N_2^2 \cdot \left(N_1^2 + 2\right) + N_1^2 + N_2^2\right)}{\left(N_1 \cdot \left(N_1^2 + 1\right)\right)} = 0.00000$$



$ab = 1.00000$

$A = 0.88113$ $N_1 = 1.13490$

$B = 0.79140$ $N_2 = 1.26358$

$R_1 = 3.71490$

$$\frac{(N_1^2 \cdot N_2^2 \cdot (N_1^2+2)+N_1^2+N_2^2)}{(N_1 \cdot (N_1^2+1))} = 3.71490$$

$$\frac{(2 \cdot A^2+1+A^2 \cdot (A^2+B^2))}{(A \cdot B^2 \cdot (A^2+1))} = 3.71490$$

$$R_1 - \frac{(N_1^2 \cdot N_2^2 \cdot (N_1^2+2)+N_1^2+N_2^2)}{(N_1 \cdot (N_1^2+1))} = 0.00000$$

$$R_1 - \frac{(2 \cdot A^2+1+A^2 \cdot (A^2+B^2))}{(A \cdot B^2 \cdot (A^2+1))} = 0.00000$$

$$\frac{(2 \cdot A^2+1+A^2 \cdot (A^2+B^2))}{(A \cdot B^2 \cdot (A^2+1))} - \frac{(N_1^2 \cdot N_2^2 \cdot (N_1^2+2)+N_1^2+N_2^2)}{(N_1 \cdot (N_1^2+1))} = 0.00000$$

$R_2 = 0.26919$

$$\frac{(A \cdot B^2 \cdot (A^2+1))}{(2 \cdot A^2+1+A^2 \cdot (A^2+B^2))} = 0.26919$$

$$R_2 - \frac{(A \cdot B^2 \cdot (A^2+1))}{(2 \cdot A^2+1+A^2 \cdot (A^2+B^2))} = 0.00000$$

3OBT3R0

Given.

Unit. $ab := 1$

$N_1 := 1.33273 \quad N_2 := 1.79469$

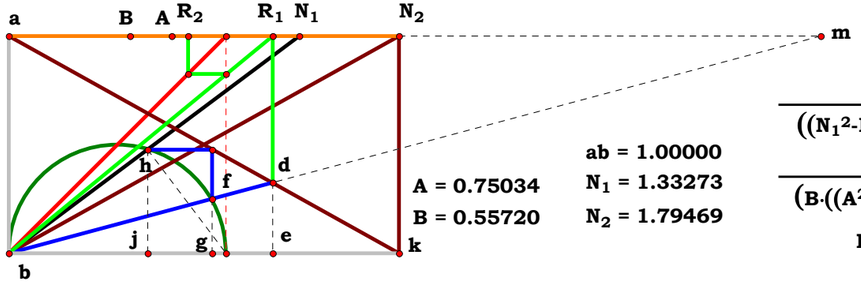
$A := \frac{1}{N_1} \quad B := \frac{1}{N_2}$

Descriptions.

$bN_1 := \sqrt{1 + N_1^2} \quad bh := \frac{N_1}{bN_1} \quad hj := \frac{bh}{bN_1}$

$jk := N_2 \cdot hj \quad bg := N_2 - jk \quad fg := \sqrt{bg \cdot (1 - bg)}$

$am := \frac{bg}{fg} \quad R_1 := \frac{am \cdot N_2}{am + N_2} \quad R_2 := \frac{1}{R_1} \quad R_1 = 1.212272$



$A = 0.75034$
$B = 0.55720$

$ab = 1.00000$
$N_1 = 1.33273$
$N_2 = 1.79469$

$R_1 = 1.21228$

$$\frac{(N_2 \cdot ((N_1^2 - N_1) + 1))}{((N_1^2 - N_1) + 1 + \sqrt{N_2 \cdot ((N_1^2 - N_1) + 1) \cdot ((N_1^2 - N_1^2 \cdot N_2 - N_2) + N_1 \cdot N_2 + 1)})} = 1.21228$$

$$\frac{((A^2 - A) + 1)}{(B \cdot ((A^2 - A) + 1) + \sqrt{((A^2 - A) + 1) \cdot (((B - 1) \cdot A^2 + A + B) - 1)})} = 1.21228$$

$R_2 = 0.82489$

$$R_1 - \frac{(N_2 \cdot ((N_1^2 - N_1) + 1))}{((N_1^2 - N_1) + 1 + \sqrt{N_2 \cdot ((N_1^2 - N_1) + 1) \cdot ((N_1^2 - N_1^2 \cdot N_2 - N_2) + N_1 \cdot N_2 + 1)})} = 0.00000$$

$$\frac{(B \cdot ((A^2 - A) + 1) + \sqrt{((A^2 - A) + 1) \cdot (((B - 1) \cdot A^2 + A + B) - 1)})}{((A^2 - A) + 1)} = 0.82489$$

$$R_1 - \frac{((A^2 - A) + 1)}{(B \cdot ((A^2 - A) + 1) + \sqrt{((A^2 - A) + 1) \cdot (((B - 1) \cdot A^2 + A + B) - 1)})} = 0.00000$$

$$R_2 - \frac{(B \cdot ((A^2 - A) + 1) + \sqrt{((A^2 - A) + 1) \cdot (((B - 1) \cdot A^2 + A + B) - 1)})}{((A^2 - A) + 1)} = 0.00000$$

$$\frac{((A^2 - A) + 1)}{(B \cdot ((A^2 - A) + 1) + \sqrt{((A^2 - A) + 1) \cdot (((B - 1) \cdot A^2 + A + B) - 1)})} - \frac{(N_2 \cdot ((N_1^2 - N_1) + 1))}{((N_1^2 - N_1) + 1 + \sqrt{N_2 \cdot ((N_1^2 - N_1) + 1) \cdot ((N_1^2 - N_1^2 \cdot N_2 - N_2) + N_1 \cdot N_2 + 1)})} = 0.00000$$

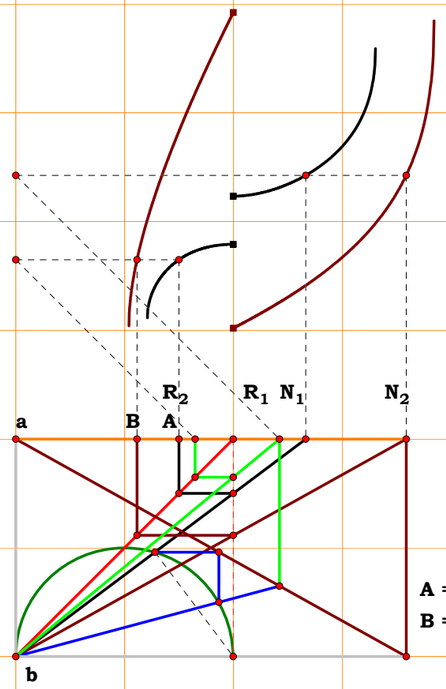
Definitions.

$$R_1 - \frac{N_2 \cdot \left(N_1^2 - N_1 + 1\right)}{\sqrt{N_2 \cdot \left(N_1^2 - N_1 + 1\right) \cdot \left(N_1^2 - N_1^2 \cdot N_2 - N_2 + N_1 \cdot N_2 + 1\right)} - N_1 + N_1^2 + 1} = 0$$

$N_1 - \frac{1}{A} = 0 \qquad N_2 - \frac{1}{B} = 0$

$$R_1 - \frac{\left(A^2 - A + 1\right)}{\sqrt{\left(A^2 - A + 1\right) \cdot \left[(B - 1) \cdot A^2 + (A + B - 1)\right]} + B \cdot \left(A^2 - A + 1\right)} = 0$$

$$R_2 - \frac{B + \sqrt{\left(A^2 - A + 1\right) \cdot \left[(B - 1) \cdot A^2 + A + B - 1\right]} - A \cdot B + A^2 \cdot B}{A^2 - A + 1} = 0$$



A = 0.75034

B = 0.55720

ab = 1.00000

N_1 = 1.33273

N_2 = 1.79469

R_1 = 1.21228

$$\frac{(N_2\cdot((N_1^2-N_1)+1))}{((N_1^2-N_1)+1+\sqrt{N_2\cdot((N_1^2-N_1)+1)\cdot((N_1^2-N_1^2\cdot N_2-N_2)+N_1\cdot N_2+1)})} = 1.21228$$

$$\frac{((A^2-A)+1)}{(B\cdot((A^2-A)+1)+\sqrt{((A^2-A)+1)\cdot(((B-1)\cdot A^2+A+B)-1)})} = 1.21228$$

R_2 = 0.82489

$$R_1-\frac{(N_2\cdot((N_1^2-N_1)+1))}{((N_1^2-N_1)+1+\sqrt{N_2\cdot((N_1^2-N_1)+1)\cdot((N_1^2-N_1^2\cdot N_2-N_2)+N_1\cdot N_2+1)})} = 0.00000$$

$$R_1-\frac{((A^2-A)+1)}{(B\cdot((A^2-A)+1)+\sqrt{((A^2-A)+1)\cdot(((B-1)\cdot A^2+A+B)-1)})} = 0.00000$$

$$\frac{(B\cdot((A^2-A)+1)+\sqrt{((A^2-A)+1)\cdot(((B-1)\cdot A^2+A+B)-1)})}{((A^2-A)+1)} = 0.82489$$

$$R_2-\frac{(B\cdot((A^2-A)+1)+\sqrt{((A^2-A)+1)\cdot(((B-1)\cdot A^2+A+B)-1)})}{((A^2-A)+1)} = 0.00000$$

$$\frac{((A^2-A)+1)}{(B\cdot((A^2-A)+1)+\sqrt{((A^2-A)+1)\cdot(((B-1)\cdot A^2+A+B)-1)})}-\frac{(N_2\cdot((N_1^2-N_1)+1))}{((N_1^2-N_1)+1+\sqrt{N_2\cdot((N_1^2-N_1)+1)\cdot((N_1^2-N_1^2\cdot N_2-N_2)+N_1\cdot N_2+1)})} = 0.00000$$

3OBT3R1

Given.

Unit. am := 1

$N_1 := 1.35505 \quad N_2 := 3.63672$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2}$

Descriptions.

$bN_1 := \sqrt{1 + N_1^2} \quad bf := \frac{N_1}{bN_1} \quad fg := \frac{bf}{bN_1}$

$eh := N_2 \cdot fg \quad R_1 := N_2 - eh$

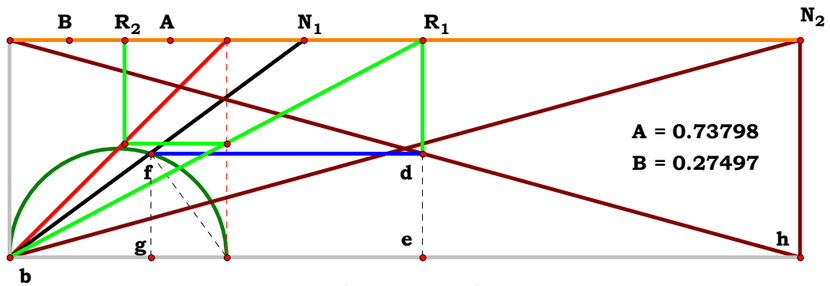
$R_2 := \frac{1}{R_1} \quad R_1 = 1.899182$

Definitions.

$R_1 - \frac{N_1^2 \cdot N_2 - N_1 \cdot N_2 + N_2}{1 + N_1^2} = 0$

$N_1 - \frac{1}{A} = 0 \quad N_2 - \frac{1}{B} = 0$

$R_1 - \frac{\left(A^2 - A + 1\right)}{B \cdot \left(A^2 + 1\right)} = 0 \quad R_2 - \frac{B \cdot \left(A^2 + 1\right)}{A^2 - A + 1} = 0$



$R_1 = 1.89918$

$ab = 1.00000 \quad \frac{(N_1^2 \cdot N_2 - N_1 \cdot N_2) + N_2}{1 + N_1^2} = 1.89918$

$N_1 = 1.35505$

$N_2 = 3.63672 \quad \frac{((A^2 - A) + 1)}{(B \cdot (A^2 + 1))} = 1.89918$

$R_1 - \frac{(N_1^2 \cdot N_2 - N_1 \cdot N_2) + N_2}{1 + N_1^2} = 0.00000$

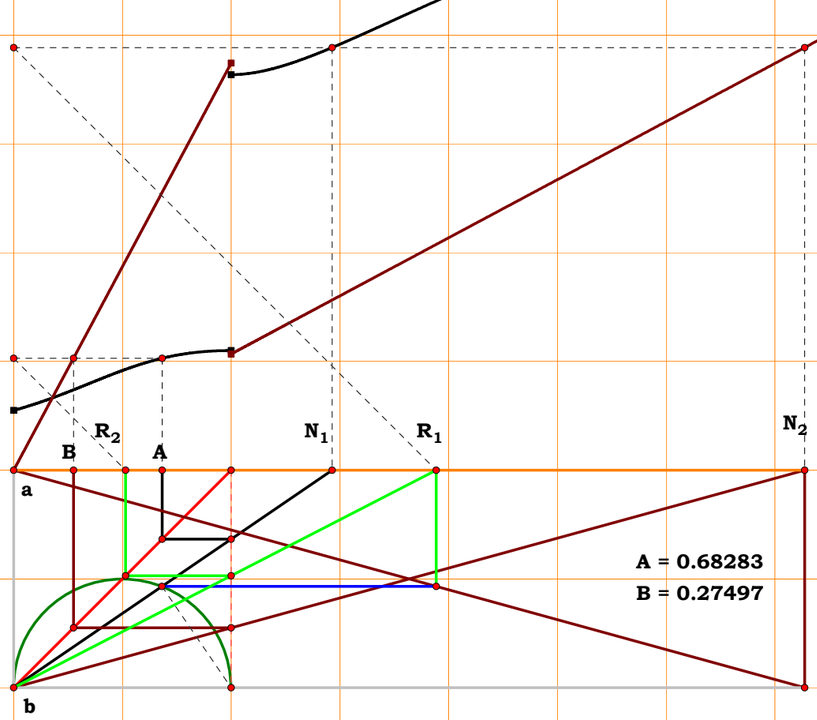
$R_1 - \frac{((A^2 - A) + 1)}{(B \cdot (A^2 + 1))} = 0.00000$

$\frac{((A^2 - A) + 1)}{(B \cdot (A^2 + 1))} - \frac{(N_1^2 \cdot N_2 - N_1 \cdot N_2) + N_2}{1 + N_1^2} = 0.00000$

$R_2 = 0.52654$

$\frac{(B \cdot (A^2 + 1))}{((A^2 - A) + 1)} = 0.52654$

$R_2 - \frac{(B \cdot (A^2 + 1))}{((A^2 - A) + 1)} = 0.27725$



A = 0.68283
B = 0.27497

ab = 1.00000
N_1 = 1.46450
N_2 = 3.63672

R_1 = 1.94312

$$\frac{(N_1^2 \cdot N_2 - N_1 \cdot N_2) + N_2}{1 + N_1^2} = 1.94312$$

$$\frac{((A^2 - A) + 1)}{(B \cdot (A^2 + 1))} = 1.94312$$

$$R_1 - \frac{(N_1^2 \cdot N_2 - N_1 \cdot N_2) + N_2}{1 + N_1^2} = 0.00000$$

$$R_1 - \frac{((A^2 - A) + 1)}{(B \cdot (A^2 + 1))} = 0.00000$$

$$\frac{((A^2 - A) + 1)}{(B \cdot (A^2 + 1))} - \frac{(N_1^2 \cdot N_2 - N_1 \cdot N_2) + N_2}{1 + N_1^2} = 0.00000$$

R_2 = 0.51464

$$\frac{(B \cdot (A^2 + 1))}{((A^2 - A) + 1)} = 0.51464$$

$$R_2 \cdot \frac{(B \cdot (A^2 + 1))}{((A^2 - A) + 1)} = 0.26485$$

3OBT3R2

Given.

Unit. $ab := 1$

$N_1 := 1.78695 \quad N_2 := 2.32898$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2}$

Descriptions.

$bN_1 := \sqrt{1 + N_1^2} \quad bh := \frac{N_1}{bN_1} \quad hk := \frac{bh}{bN_1}$

$ej := N_2 \cdot hk \quad be := N_2 - ej \quad am := \frac{be}{hk}$

$bm := \sqrt{1 + am^2} \quad bf := \frac{am}{bm} \quad R_1 := \frac{am \cdot bf}{bm}$

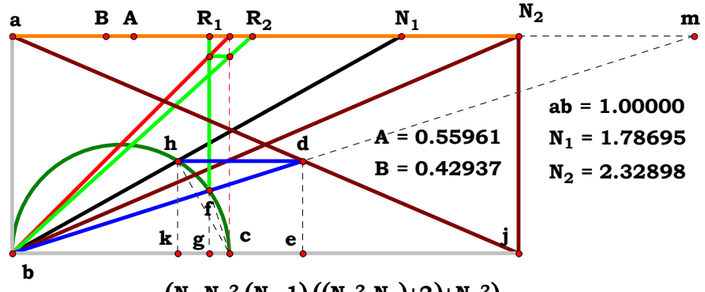
$R_2 := \frac{1}{R_1} \quad R_1 = 0.907709$

Definitions.

$$R_1 - \frac{N_1 \cdot N_2^2 \cdot (N_1 - 1) \cdot (N_1^2 - N_1 + 2) + N_2^2}{N_1 \cdot N_2^2 \cdot (N_1 - 1) \cdot (N_1^2 - N_1 + 2) + N_1^2 + N_2^2} = 0$$

$N_1 - \frac{1}{A} = 0 \quad N_2 - \frac{1}{B} = 0$

$$R_1 - \frac{(A^2 - A + 1)^2}{A^2 \cdot B^2 + 1 + A \cdot (A - 1) \cdot (A^2 - A + 2)} = 0 \qquad R_2 - \frac{A^2 \cdot B^2 + 1 + A \cdot (A - 1) \cdot (A^2 - A + 2)}{(A^2 - A + 1)^2} = 0$$



ab = 1.00000
N1 = 1.78695
N2 = 2.32898
A = 0.55961
B = 0.42937

$R_1 = 0.90771$

$$\frac{(N_1 \cdot N_2^2 \cdot (N_1 - 1) \cdot ((N_1^2 - N_1) + 2) + N_2^2)}{(N_1 \cdot N_2^2 \cdot (N_1 - 1) \cdot ((N_1^2 - N_1) + 2) + N_1^2 + N_2^2)} = 0.90771$$

$$\frac{((A^2 - A) + 1)^2}{(A^2 \cdot B^2 + 1 + A \cdot (A - 1) \cdot ((A^2 - A) + 2))} = 0.90771$$

$$R_1 - \frac{(N_1 \cdot N_2^2 \cdot (N_1 - 1) \cdot ((N_1^2 - N_1) + 2) + N_2^2)}{(N_1 \cdot N_2^2 \cdot (N_1 - 1) \cdot ((N_1^2 - N_1) + 2) + N_1^2 + N_2^2)} = 0.00000$$

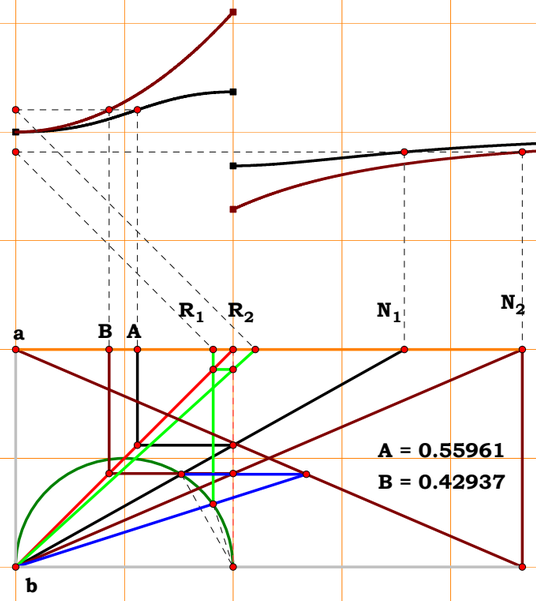
$$R_1 - \frac{((A^2 - A) + 1)^2}{(A^2 \cdot B^2 + 1 + A \cdot (A - 1) \cdot ((A^2 - A) + 2))} = 0.00000$$

$$\frac{((A^2 - A) + 1)^2}{(A^2 \cdot B^2 + 1 + A \cdot (A - 1) \cdot ((A^2 - A) + 2))} - \frac{(N_1 \cdot N_2^2 \cdot (N_1 - 1) \cdot ((N_1^2 - N_1) + 2) + N_2^2)}{(N_1 \cdot N_2^2 \cdot (N_1 - 1) \cdot ((N_1^2 - N_1) + 2) + N_1^2 + N_2^2)} = 0.00000$$

$R_2 = 1.10168$

$$\frac{(A^2 \cdot B^2 + 1 + A \cdot (A - 1) \cdot ((A^2 - A) + 2))}{((A^2 - A) + 1)^2} = 1.10168$$

$$R_2 - \frac{(A^2 \cdot B^2 + 1 + A \cdot (A - 1) \cdot ((A^2 - A) + 2))}{((A^2 - A) + 1)^2} = 0.00000$$



$ab = 1.00000$

$A = 0.55961$

$B = 0.42937$

$N_1 = 1.78695$

$N_2 = 2.32898$

$R_1 = 0.90771$

$$\frac{(N_1 \cdot N_2^2 \cdot (N_1-1) \cdot ((N_1^2-N_1)+2)+N_2^2)}{(N_1 \cdot N_2^2 \cdot (N_1-1) \cdot ((N_1^2-N_1)+2)+N_1^2+N_2^2)} = 0.90771$$

$$\frac{((A^2-A)+1)^2}{(A^2 \cdot B^2+1+A \cdot (A-1) \cdot ((A^2-A)+2))} = 0.90771$$

$$R_1 - \frac{(N_1 \cdot N_2^2 \cdot (N_1-1) \cdot ((N_1^2-N_1)+2)+N_2^2)}{(N_1 \cdot N_2^2 \cdot (N_1-1) \cdot ((N_1^2-N_1)+2)+N_1^2+N_2^2)} = 0.00000$$

$$R_1 - \frac{((A^2-A)+1)^2}{(A^2 \cdot B^2+1+A \cdot (A-1) \cdot ((A^2-A)+2))} = 0.00000$$

$$\frac{((A^2-A)+1)^2}{(A^2 \cdot B^2+1+A \cdot (A-1) \cdot ((A^2-A)+2))} - \frac{(N_1 \cdot N_2^2 \cdot (N_1-1) \cdot ((N_1^2-N_1)+2)+N_2^2)}{(N_1 \cdot N_2^2 \cdot (N_1-1) \cdot ((N_1^2-N_1)+2)+N_1^2+N_2^2)} = 0.00000$$

$R_2 = 1.10168$

$$\frac{(A^2 \cdot B^2+1+A \cdot (A-1) \cdot ((A^2-A)+2))}{((A^2-A)+1)^2} = 1.10168$$

$$R_2 - \frac{(A^2 \cdot B^2+1+A \cdot (A-1) \cdot ((A^2-A)+2))}{((A^2-A)+1)^2} = 0.00000$$

3OBT2R3

Given.

Unit. $ab := 1$

$N_1 := 2.91820 \quad N_2 := 1.17360$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2}$

Descriptions.

$bN_1 := \sqrt{1 + N_1^2} \quad bk := \frac{N_1}{bN_1}$

$km := \frac{bk}{bN_1} \quad jo := N_2 \cdot km$

$bj := N_2 - jo \quad gj := \sqrt{bj \cdot (1 - bj)}$

$ap := \frac{bj}{gj} \quad bf := \frac{ap \cdot N_2}{ap + N_2}$

$df := \sqrt{bf \cdot (1 - bf)} \quad R_1 := \frac{bf}{df}$

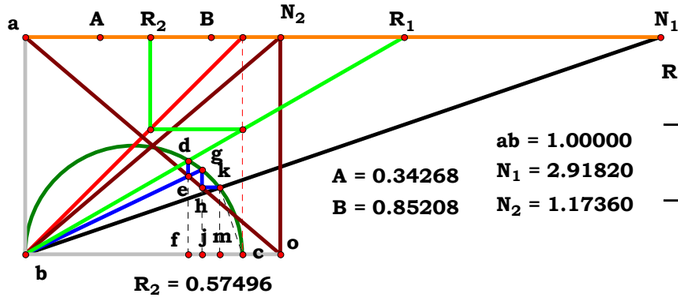
$R_2 := \frac{1}{R_1} \quad R_1 = 1.73926$

Definitions.

$N_1 - \frac{1}{A} = 0 \quad \frac{N_2 \cdot \left(N_1^2 - N_1 + 1\right)}{\left(N_1^2 - N_1 + 1\right) \cdot \left[\sqrt{N_2 \cdot \left(N_1^2 - N_1 + 1\right) \cdot \left(N_1^2 - N_1^2 \cdot N_2 - N_2 + N_1 \cdot N_2 + 1\right)} - N_2 - N_1^2 \cdot N_2 - N_1 + N_1^2 + N_1 \cdot N_2 + 1\right]} = 0$

$N_2 - \frac{1}{B} = 0$

$R_1 - \frac{\left(A^2 - A + 1\right)}{\sqrt{\left(A^2 - A + 1\right) \cdot \left[\sqrt{\left(A^2 - A + 1\right) \cdot \left(B \cdot A^2 - A^2 + A - 1 + B\right)} + \left(A^2 - A + 1\right) \cdot (B - 1)\right]}} = 0 \qquad R_2 - \frac{\sqrt{\left[(B - 1) \cdot \left(A^2 - A + 1\right) + \sqrt{\left(A^2 - A + 1\right) \cdot \left(A + B - A^2 + A^2 \cdot B - 1\right)}\right] \cdot \left(A^2 - A + 1\right)}}{A^2 - A + 1} = 0$



$ab = 1.00000$
$N_1 = 2.91820$
$N_2 = 1.17360$

$A = 0.34268$
$B = 0.85208$

$R_1 = 1.73925$

$R_2 = 0.57496$

$$\frac{N_2 \cdot ((N_1^2 - N_1) + 1)}{\sqrt{N_2 \cdot ((N_1^2 - N_1) + 1) \cdot \left(\left(\sqrt{N_2 \cdot ((N_1^2 - N_1) + 1) \cdot ((N_1^2 - N_1^2 \cdot N_2 - N_2) + N_1 \cdot N_2 + 1)}\right) - N_2 - N_1^2 \cdot N_2 - N_1\right) + N_1^2 + N_1 \cdot N_2 + 1}} = 1.73925$$

$$\frac{((A^2 - A) + 1)}{\sqrt{((A^2 - A) + 1) \cdot \left(\sqrt{((A^2 - A) + 1) \cdot ((((A^2 \cdot B - A^2) + A) - 1) + B)} + ((A^2 - A) + 1) \cdot (B - 1)\right)}} = 1.73925$$

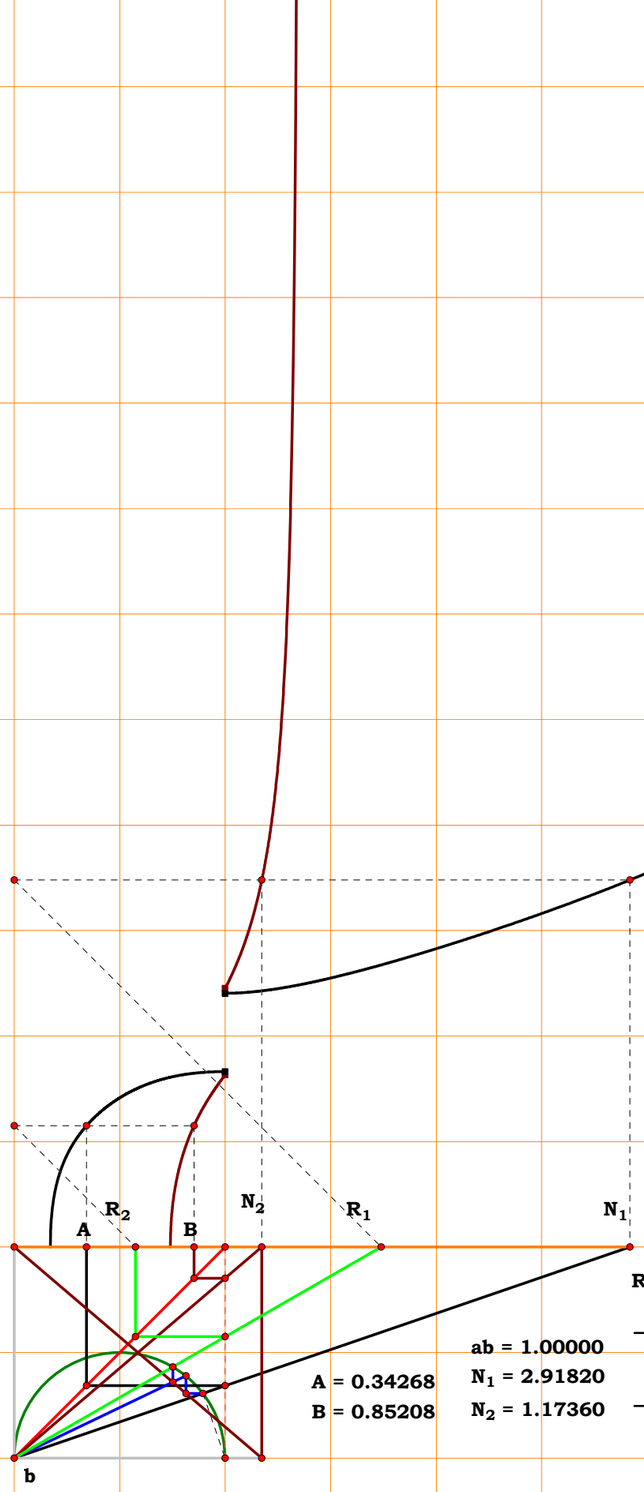
$$\frac{\sqrt{((A^2 - A) + 1) \cdot \left(\sqrt{((A^2 - A) + 1) \cdot ((((A^2 \cdot B - A^2) + A) - 1) + B)} + ((A^2 - A) + 1) \cdot (B - 1)\right)}}{((A^2 - A) + 1)} = 0.57496$$

$$R_2 - \frac{\sqrt{((A^2 - A) + 1) \cdot \left(\sqrt{((A^2 - A) + 1) \cdot ((((A^2 \cdot B - A^2) + A) - 1) + B)} + ((A^2 - A) + 1) \cdot (B - 1)\right)}}{((A^2 - A) + 1)} = 0.00000$$

$$R_1 - \frac{N_2 \cdot ((N_1^2 - N_1) + 1)}{\sqrt{N_2 \cdot ((N_1^2 - N_1) + 1) \cdot \left(\left(\sqrt{N_2 \cdot ((N_1^2 - N_1) + 1) \cdot ((N_1^2 - N_1^2 \cdot N_2 - N_2) + N_1 \cdot N_2 + 1)}\right) - N_2 - N_1^2 \cdot N_2 - N_1\right) + N_1^2 + N_1 \cdot N_2 + 1}} = 0.00000$$

$$R_1 - \frac{((A^2 - A) + 1)}{\sqrt{((A^2 - A) + 1) \cdot \left(\sqrt{((A^2 - A) + 1) \cdot ((((A^2 \cdot B - A^2) + A) - 1) + B)} + ((A^2 - A) + 1) \cdot (B - 1)\right)}} = 0.00000$$

$$\frac{((A^2 - A) + 1)}{\sqrt{((A^2 - A) + 1) \cdot \left(\sqrt{((A^2 - A) + 1) \cdot ((((A^2 \cdot B - A^2) + A) - 1) + B)} + ((A^2 - A) + 1) \cdot (B - 1)\right)}} - \frac{N_2 \cdot ((N_1^2 - N_1) + 1)}{\sqrt{N_2 \cdot ((N_1^2 - N_1) + 1) \cdot \left(\left(\sqrt{N_2 \cdot ((N_1^2 - N_1) + 1) \cdot ((N_1^2 - N_1^2 \cdot N_2 - N_2) + N_1 \cdot N_2 + 1)}\right) - N_2 - N_1^2 \cdot N_2 - N_1\right) + N_1^2 + N_1 \cdot N_2 + 1}} = 0.00000$$



$R_2 = 0.57496$

$$\frac{\sqrt{((A^2-A)+1)\cdot(\sqrt{((A^2-A)+1)\cdot((((A^2\cdot B-A^2)+A)-1)+B)+((A^2-A)+1)\cdot(B-1)})}}{((A^2-A)+1)} = 0.57496$$

$$R_2-\frac{\sqrt{((A^2-A)+1)\cdot(\sqrt{((A^2-A)+1)\cdot((((A^2\cdot B-A^2)+A)-1)+B)+((A^2-A)+1)\cdot(B-1)})}}{((A^2-A)+1)} = 0.00000$$

$$R_1-\frac{N_2\cdot((N_1{}^2-N_1)+1)}{\sqrt{N_2\cdot((N_1{}^2-N_1)+1)\cdot((\sqrt{N_2\cdot((N_1{}^2-N_1)+1)\cdot((N_1{}^2-N_1{}^2\cdot N_2-N_2)+N_1\cdot N_2+1)}-N_2-N_1{}^2\cdot N_2-N_1)+N_1{}^2+N_1\cdot N_2+1)}} = 0.00000$$

$$R_1-\frac{((A^2-A)+1)}{\sqrt{((A^2-A)+1)\cdot(\sqrt{((A^2-A)+1)\cdot((((A^2\cdot B-A^2)+A)-1)+B)+((A^2-A)+1)\cdot(B-1)})}} = 0.00000$$

$$\frac{((A^2-A)+1)}{\sqrt{((A^2-A)+1)\cdot(\sqrt{((A^2-A)+1)\cdot((((A^2\cdot B-A^2)+A)-1)+B)+((A^2-A)+1)\cdot(B-1)})}}-\frac{N_2\cdot((N_1{}^2-N_1)+1)}{\sqrt{N_2\cdot((N_1{}^2-N_1)+1)\cdot((\sqrt{N_2\cdot((N_1{}^2-N_1)+1)\cdot((N_1{}^2-N_1{}^2\cdot N_2-N_2)+N_1\cdot N_2+1)}-N_2-N_1{}^2\cdot N_2-N_1)+N_1{}^2+N_1\cdot N_2+1)}} = 0.00000$$

$R_1 = 1.73925$

$$\frac{N_2\cdot((N_1{}^2-N_1)+1)}{\sqrt{N_2\cdot((N_1{}^2-N_1)+1)\cdot((\sqrt{N_2\cdot((N_1{}^2-N_1)+1)\cdot((N_1{}^2-N_1{}^2\cdot N_2-N_2)+N_1\cdot N_2+1)}-N_2-N_1{}^2\cdot N_2-N_1)+N_1{}^2+N_1\cdot N_2+1)}} = 1.73925$$

$$\frac{((A^2-A)+1)}{\sqrt{((A^2-A)+1)\cdot(\sqrt{((A^2-A)+1)\cdot((((A^2\cdot B-A^2)+A)-1)+B)+((A^2-A)+1)\cdot(B-1)})}} = 1.73925$$

ab = 1.00000
$N_1 = 2.91820$
$N_2 = 1.17360$

A = 0.34268
B = 0.85208

3OBT3R4

Given.

Unit. $ab := 1$

$N_1 := 1.77838 \quad N_2 := 1.50350$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2}$

Descriptions.

$bN_1 := \sqrt{1 + N_1^{\,2}} \quad bg := \frac{N_1}{bN_1}$

$gh := \frac{bg}{bN_1} \quad fj := N_2 \cdot gh$

$bf := N_2 - fj \quad df := \sqrt{bf \cdot (1 - bf)}$

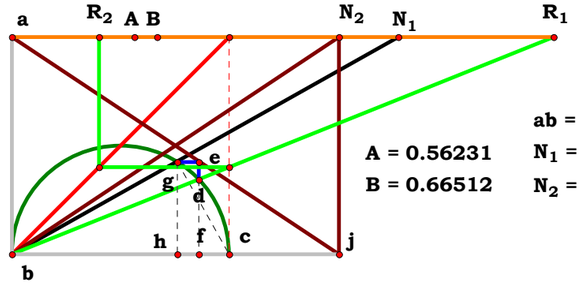
$R_1 := \frac{bf}{df} \quad R_2 := \frac{1}{R_1} \quad R_1 = 2.490571$

Definitions.

$$R_1 - \frac{N_2 \cdot \left(N_1^{\,2} - N_1 + 1\right)}{\sqrt{N_2 \cdot \left(N_1^{\,2} - N_1 + 1\right) \cdot \left(N_1^{\,2} - N_1^{\,2} \cdot N_2 - N_2 + N_1 \cdot N_2 + 1\right)}} = 0$$

$N_1 - \frac{1}{A} = 0 \quad N_2 - \frac{1}{B} = 0$

$$R_1 - \frac{\left(A^2 - A + 1\right)}{\sqrt{\left[\left(A^2 - A + 1\right) \cdot \left(A + B - A^2 + A^2 \cdot B - 1\right)\right]}} = 0 \qquad R_2 - \frac{\sqrt{\left(A^2 - A + 1\right) \cdot \left(A + B - A^2 + A^2 \cdot B - 1\right)}}{A^2 - A + 1} = 0$$



$A = 0.56231$
$B = 0.66512$

$ab = 1.00000$
$N_1 = 1.77838$
$N_2 = 1.50350$

$R_1 = 2.49057$

$$\frac{N_2 \cdot ((N_1^{\,2} - N_1) + 1)}{\sqrt{N_2 \cdot ((N_1^{\,2} - N_1) + 1) \cdot ((N_1^{\,2} - N_1^{\,2} \cdot N_2 - N_2) + N_1 \cdot N_2 + 1)}} = 2.49057$$

$$\frac{((A^2 - A) + 1)}{\sqrt{((A^2 - A) + 1) \cdot ((((A + B) - A^2) + A^2 \cdot B) - 1)}} = 2.49057$$

$$R_1 - \frac{N_2 \cdot ((N_1^{\,2} - N_1) + 1)}{\sqrt{N_2 \cdot ((N_1^{\,2} - N_1) + 1) \cdot ((N_1^{\,2} - N_1^{\,2} \cdot N_2 - N_2) + N_1 \cdot N_2 + 1)}} = 0.00000$$

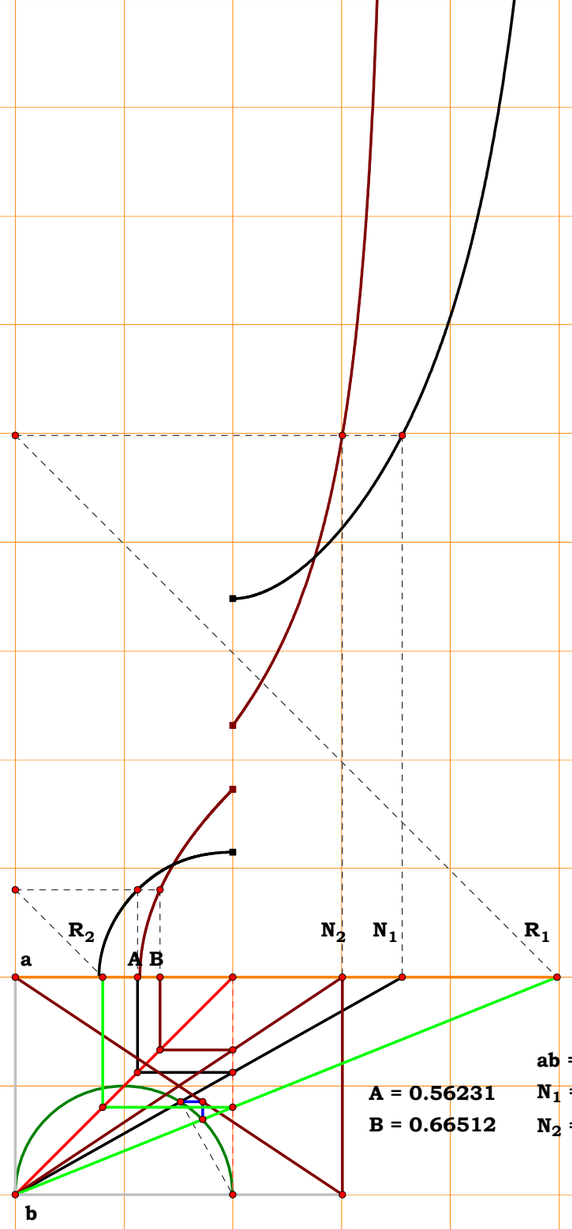
$$R_1 - \frac{((A^2 - A) + 1)}{\sqrt{((A^2 - A) + 1) \cdot ((((A + B) - A^2) + A^2 \cdot B) - 1)}} = 0.00000$$

$$\frac{((A^2 - A) + 1)}{\sqrt{((A^2 - A) + 1) \cdot ((((A + B) - A^2) + A^2 \cdot B) - 1)}} - \frac{N_2 \cdot ((N_1^{\,2} - N_1) + 1)}{\sqrt{N_2 \cdot ((N_1^{\,2} - N_1) + 1) \cdot ((N_1^{\,2} - N_1^{\,2} \cdot N_2 - N_2) + N_1 \cdot N_2 + 1)}} = 0.00000$$

$R_2 = 0.40151$

$$\frac{\sqrt{((A^2 - A) + 1) \cdot ((((A + B) - A^2) + A^2 \cdot B) - 1)}}{((A^2 - A) + 1)} = 0.40151$$

$$R_2 - \frac{\sqrt{((A^2 - A) + 1) \cdot ((((A + B) - A^2) + A^2 \cdot B) - 1)}}{((A^2 - A) + 1)} = 0.00000$$



$A = 0.56231$ $ab = 1.00000$

$B = 0.66512$ $N_1 = 1.77838$

$N_2 = 1.50350$

$R_2 = 0.40151$

$$\frac{\sqrt{((A^2-A)+1)\cdot((((A+B)-A^2)+A^2\cdot B)-1)}}{((A^2-A)+1)} = 0.40151$$

$$R_2 - \frac{\sqrt{((A^2-A)+1)\cdot((((A+B)-A^2)+A^2\cdot B)-1)}}{((A^2-A)+1)} = 0.00000$$

$R_1 = 2.49057$

$$\frac{N_2\cdot((N_1{}^2-N_1)+1)}{\sqrt{N_2\cdot((N_1{}^2-N_1)+1)\cdot((N_1{}^2-N_1{}^2\cdot N_2-N_2)+N_1\cdot N_2+1)}} = 2.49057$$

$$\frac{((A^2-A)+1)}{\sqrt{((A^2-A)+1)\cdot((((A+B)-A^2)+A^2\cdot B)-1)}} = 2.49057$$

$$R_1 - \frac{N_2\cdot((N_1{}^2-N_1)+1)}{\sqrt{N_2\cdot((N_1{}^2-N_1)+1)\cdot((N_1{}^2-N_1{}^2\cdot N_2-N_2)+N_1\cdot N_2+1)}} = 0.00000$$

$$R_1 - \frac{((A^2-A)+1)}{\sqrt{((A^2-A)+1)\cdot((((A+B)-A^2)+A^2\cdot B)-1)}} = 0.00000$$

$$\frac{((A^2-A)+1)}{\sqrt{((A^2-A)+1)\cdot((((A+B)-A^2)+A^2\cdot B)-1)}} - \frac{N_2\cdot((N_1{}^2-N_1)+1)}{\sqrt{N_2\cdot((N_1{}^2-N_1)+1)\cdot((N_1{}^2-N_1{}^2\cdot N_2-N_2)+N_1\cdot N_2+1)}} = 0.00000$$

3OBT3R5

Given.

Unit. $ab := 1$

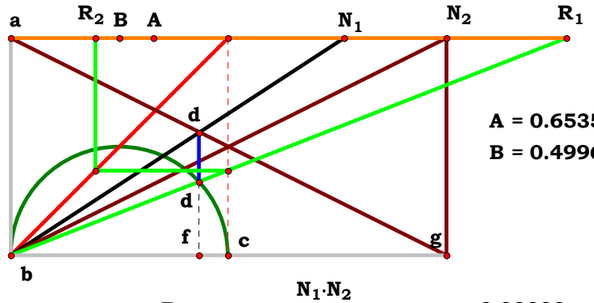
$N_1 := 1.53003 \quad N_2 := 2.00158$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2}$

Descriptions.

$bf := \frac{N_1 \cdot N_2}{N_1 + N_2} \quad df := \sqrt{bf \cdot (1 - bf)}$

$R_1 := \frac{bf}{df} \quad R_2 := \frac{1}{R_1} \quad R_1 = 2.554987$



$A = 0.65358$

$B = 0.49961$

$ab = 1.00000$

$N_1 = 1.53003$

$N_2 = 2.00158$

$R_1 = 2.55497$

$\frac{N_1 \cdot N_2}{\sqrt{N_1 \cdot N_2 \cdot ((N_1 + N_2) - N_1 \cdot N_2)}} = 2.55497$

$\frac{1}{\sqrt{(A+B)-1}} = 2.55497$

$R_1 - \frac{N_1 \cdot N_2}{\sqrt{N_1 \cdot N_2 \cdot ((N_1 + N_2) - N_1 \cdot N_2)}} = 0.00000$

$R_1 - \frac{1}{\sqrt{(A+B)-1}} = 0.00000$

$\frac{1}{\sqrt{(A+B)-1}} - \frac{N_1 \cdot N_2}{\sqrt{N_1 \cdot N_2 \cdot ((N_1 + N_2) - N_1 \cdot N_2)}} = 0.00000$

$R_2 = 0.39139$

$\sqrt{(A+B)-1} = 0.39139$

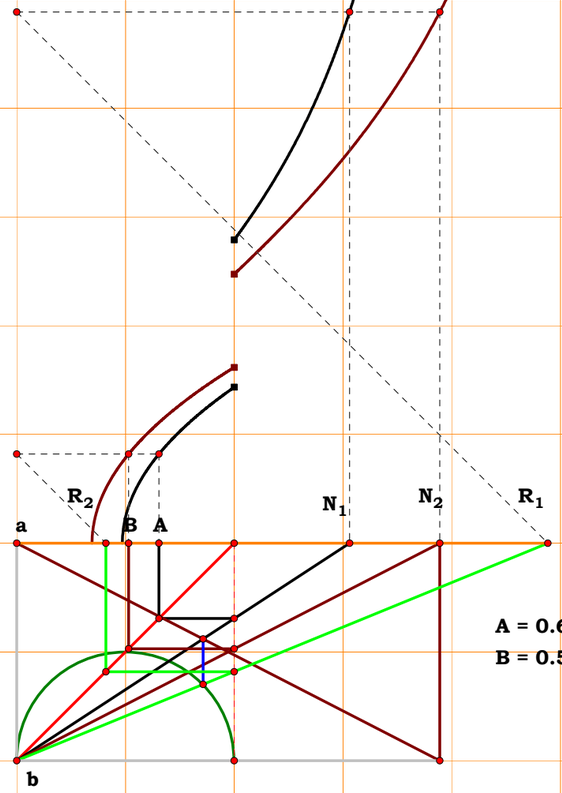
$R_2 - \sqrt{(A+B)-1} = 0.00000$

Definitions.

$R_1 - \frac{N_1 \cdot N_2}{\sqrt{N_1 \cdot N_2 \cdot (N_1 + N_2 - N_1 \cdot N_2)}} = 0$

$N_1 - \frac{1}{A} = 0 \qquad N_2 - \frac{1}{B} = 0$

$R_1 - \frac{1}{\sqrt{(A + B - 1)}} = 0 \qquad R_2 - \sqrt{(A + B - 1)} = 0$



$A = 0.65358$

$B = 0.51412$

$ab = 1.00000$

$N_1 = 1.53003$

$N_2 = 1.94507$

$R_1 = 2.44190$

$$\frac{N_1 \cdot N_2}{\sqrt{N_1 \cdot N_2 \cdot ((N_1+N_2)-N_1 \cdot N_2)}} = 2.44190$$

$$\frac{1}{\sqrt{(A+B)-1}} = 2.44190$$

$$R_1 - \frac{N_1 \cdot N_2}{\sqrt{N_1 \cdot N_2 \cdot ((N_1+N_2)-N_1 \cdot N_2)}} = 0.00000$$

$$R_1 - \frac{1}{\sqrt{(A+B)-1}} = 0.00000$$

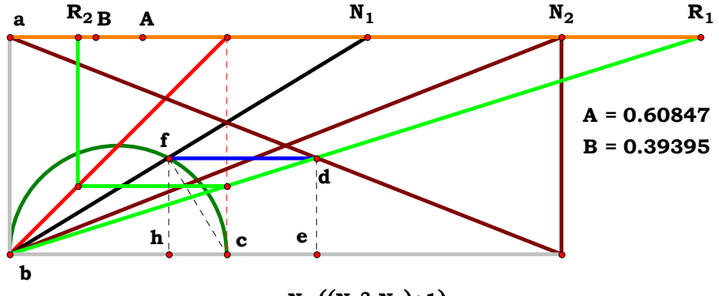
$$\frac{1}{\sqrt{(A+B)-1}} - \frac{N_1 \cdot N_2}{\sqrt{N_1 \cdot N_2 \cdot ((N_1+N_2)-N_1 \cdot N_2)}} = 0.00000$$

$R_2 = 0.40952$

$\sqrt{(A+B)-1} = 0.40952$

$R_2 - \sqrt{(A+B)-1} = 0.00000$

3OBT3R6



A = 0.60847
B = 0.39395

ab = 1.00000
N1 = 1.64346
N2 = 2.53839

R1 = 3.17790

$\frac{N_2\cdot((N_1^2-N_1)+1)}{N_1} = 3.17790$

$\frac{((A^2-A)+1)}{(A\cdot B)} = 3.17790$

Given.

Unit. $ab := 1$

$N_1 := 1.64346 \quad N_2 := 2.53839$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2}$

$R_1 - \frac{N_2\cdot((N_1^2-N_1)+1)}{N_1} = 0.00000$

$R_1 - \frac{((A^2-A)+1)}{(A\cdot B)} = 0.00000$

$\frac{((A^2-A)+1)}{(A\cdot B)} - R_1 = 0.00000$

$R_2 = 0.31467$

$\frac{(A\cdot B)}{((A^2-A)+1)} = 0.31467$

$R_2 - \frac{(A\cdot B)}{((A^2-A)+1)} = 0.00000$

Descriptions.

$bN_1 := \sqrt{1+N_1^2} \quad bf := \frac{N_1}{bN_1} \quad fh := \frac{bf}{bN_1}$

$eh := N_2\cdot fh \quad be := N_2 - eh \quad R_1 := \frac{be}{fh}$

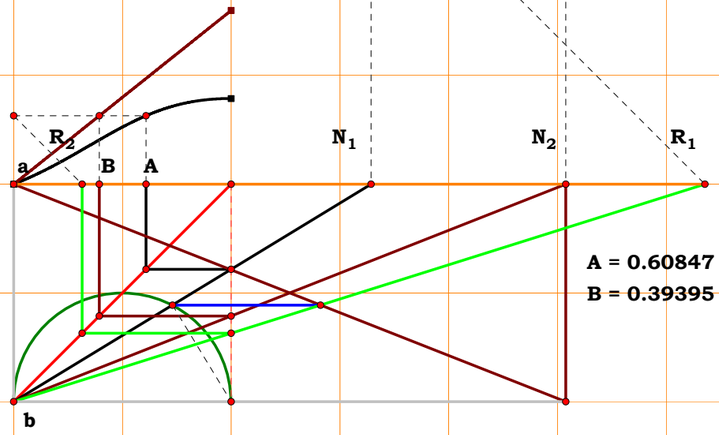
$R_2 := \frac{1}{R_1} \quad R_1 = 3.177893$

Definitions.

$R_1 - \frac{N_2\cdot\left(N_1^2 - N_1 + 1\right)}{N_1} = 0$

$N_1 - \frac{1}{A} = 0 \quad N_2 - \frac{1}{B} = 0$

$R_1 - \frac{A^2 - A + 1}{A\cdot B} = 0 \quad R_2 - \frac{A\cdot B}{A^2 - A + 1} = 0$



A = 0.60847

B = 0.39395

ab = 1.00000

N_1 = 1.64346

N_2 = 2.53839

R_1 = 3.17790

$$\frac{N_2\cdot((N_1^2-N_1)+1)}{N_1} = 3.17790$$

$$\frac{((A^2-A)+1)}{(A\cdot B)} = 3.17790$$

$$R_1-\frac{N_2\cdot((N_1^2-N_1)+1)}{N_1} = 0.00000$$

$$R_1-\frac{((A^2-A)+1)}{(A\cdot B)} = 0.00000$$

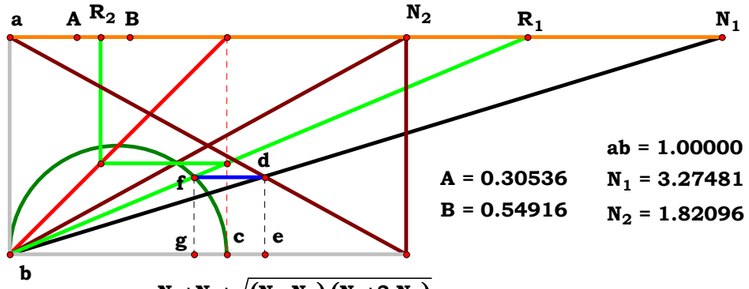
$$\frac{((A^2-A)+1)}{(A\cdot B)}-R_1 = 0.00000$$

R_2 = 0.31467

$$\frac{(A\cdot B)}{((A^2-A)+1)} = 0.31467$$

$$R_2-\frac{(A\cdot B)}{((A^2-A)+1)} = 0.00000$$

3OBT3R7



Given.

Unit. $ab := 1$

$N_1 := 3.27481 \quad N_2 := 1.82096$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2}$

Descriptions.

$be := \frac{N_2 \cdot N_1}{N_1 + N_2} \quad de := \frac{be}{N_1} \quad eg := \frac{1}{2} - \sqrt{\left(\frac{1}{2}\right)^2 - de^2}$

$bg := 1 - eg \quad R_1 := \frac{bg}{de}$

$R_2 := \frac{1}{R_1} \quad R_1 = 2.377849$

Definitions.

$R_1 - \frac{\sqrt{(N_1 - N_2)\cdot(N_1 + 3\cdot N_2)} + (N_1 + N_2)}{2\cdot N_2} = 0$

$N_1 - \frac{1}{A} = 0 \qquad N_2 - \frac{1}{B} = 0$

$R_1 - \frac{A + B + \sqrt{2\cdot A\cdot B - 3\cdot A^2 + B^2}}{2\cdot A} = 0 \qquad R_2 - \frac{2\cdot A}{A + B + \sqrt{2\cdot A\cdot B - 3\cdot A^2 + B^2}} = 0$

A = 0.30536
B = 0.54916

ab = 1.00000
N_1 = 3.27481
N_2 = 1.82096

$R_1 - \frac{N_1+N_2+\sqrt{(N_1-N_2)\cdot(N_1+3\cdot N_2)}}{2\cdot N_2} = 0.00000$

$R_1 - \frac{(A+B+\sqrt{(2\cdot A\cdot B-3\cdot A^2)+B^2})}{(2\cdot A)} = 0.00000$

$\frac{(A+B+\sqrt{(2\cdot A\cdot B-3\cdot A^2)+B^2})}{(2\cdot A)} - \frac{N_1+N_2+\sqrt{(N_1-N_2)\cdot(N_1+3\cdot N_2)}}{2\cdot N_2} = 0.00000$

$R_1 = 2.37786$

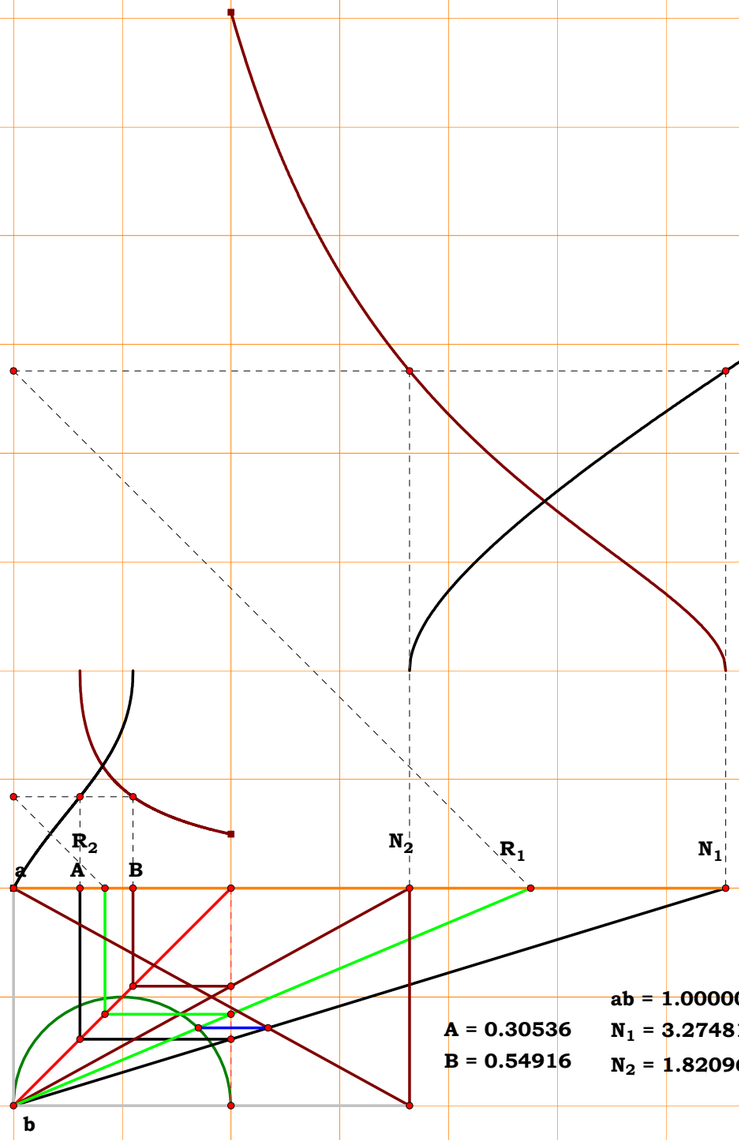
$\frac{N_1+N_2+\sqrt{(N_1-N_2)\cdot(N_1+3\cdot N_2)}}{2\cdot N_2} = 2.37786$

$\frac{(A+B+\sqrt{(2\cdot A\cdot B-3\cdot A^2)+B^2})}{(2\cdot A)} = 2.37786$

$R_2 = 0.42055$

$\frac{(2\cdot A)}{(A+B+\sqrt{(2\cdot A\cdot B-3\cdot A^2)+B^2})} = 0.42055$

$R_2 - \frac{(2\cdot A)}{(A+B+\sqrt{(2\cdot A\cdot B-3\cdot A^2)+B^2})} = 0.00000$



ab = 1.00000
A = 0.30536
B = 0.54916
N_1 = 3.27481
N_2 = 1.82096

R_1 = 2.37786

$$\frac{N_1+N_2+\sqrt{(N_1-N_2)\cdot(N_1+3\cdot N_2)}}{2\cdot N_2} = 2.37786$$

$$\frac{(A+B+\sqrt{(2\cdot A\cdot B-3\cdot A^2)+B^2})}{(2\cdot A)} = 2.37786$$

$$R_1-\frac{N_1+N_2+\sqrt{(N_1-N_2)\cdot(N_1+3\cdot N_2)}}{2\cdot N_2} = 0.00000$$

$$R_1-\frac{(A+B+\sqrt{(2\cdot A\cdot B-3\cdot A^2)+B^2})}{(2\cdot A)} = 0.00000$$

$$\frac{(A+B+\sqrt{(2\cdot A\cdot B-3\cdot A^2)+B^2})}{(2\cdot A)}-\frac{N_1+N_2+\sqrt{(N_1-N_2)\cdot(N_1+3\cdot N_2)}}{2\cdot N_2} = 0.00000$$

R_2 = 0.42055

$$\frac{(2\cdot A)}{(A+B+\sqrt{(2\cdot A\cdot B-3\cdot A^2)+B^2})} = 0.42055$$

$$R_2-\frac{(2\cdot A)}{(A+B+\sqrt{(2\cdot A\cdot B-3\cdot A^2)+B^2})} = 0.00000$$

Given. 3OBT3R8

Unit. $ab := 1$

$N_1 := 1.77511 \quad N_2 := 1.15845$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2}$

Descriptions.

$hk := \frac{N_2}{N_1 + N_2} \quad bk := \frac{1}{2} + \sqrt{\left(\frac{1}{2}\right)^2 - hk^2}$

$ap := \frac{bk}{hk} \quad ms := \frac{N_2}{ap + N_2} \quad bs := \frac{1}{2} + \sqrt{\left(\frac{1}{2}\right)^2 - ms^2}$

$R_1 := \frac{bs}{ms} \quad R_2 := \frac{1}{R_1} \quad R_1 = 2.33514$

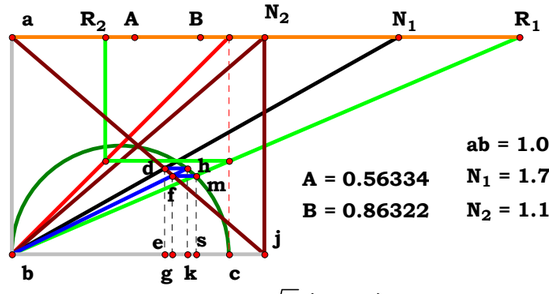
Definitions.

$$R_1 - \frac{\sqrt{2}\cdot(N_1+N_2)\cdot\left[\sqrt{(N_1+N_2)\cdot\left[N_1^2-N_2^2+2\cdot N_2\cdot(N_2^2+N_1)\cdot(N_2+1)\right]}+(N_1+N_2)\cdot\sqrt{(N_1-N_2)\cdot(N_1+3\cdot N_2)}\cdot(2\cdot N_2^2+N_2+N_1)\ \ldots\right.}{4\cdot N_2^2\cdot\sqrt{(N_1+N_2)^3}} \left.\begin{matrix}\\ +\sqrt{(N_1+N_2)\cdot\left[N_1^2-N_2^2+2\cdot N_2\cdot(N_2^2-3\cdot N_2^3+N_1\cdot N_2+N_1)\right]}+(N_1+N_2)\cdot\sqrt{(N_1-N_2)\cdot(N_1+3\cdot N_2)}\cdot(2\cdot N_2^2+N_2+N_1)\end{matrix}\right] = 0$$

$N_1 - \frac{1}{A} = 0 \quad N_2 - \frac{1}{B} = 0$

$$R_1 - \frac{\sqrt{2}\cdot\left[\sqrt{(A+B)\cdot\left[(B^3+A\cdot B^2+2\cdot A\cdot B)\cdot\sqrt{2\cdot A\cdot B-3\cdot A^2+B^2}+\left[2\cdot A\cdot(B^2+A\cdot B+A)+B^2\cdot(2\cdot A\cdot B-A^2+B^2)\right]\right]}\ \ldots\right.}{4\cdot\sqrt{(A+B)}\cdot A} \left.\begin{matrix}\\ +\sqrt{(A+B)\cdot\left[(B^3+A\cdot B^2+2\cdot A\cdot B)\cdot\sqrt{2\cdot A\cdot B-3\cdot A^2+B^2}+\left[2\cdot A\cdot(B^2+A\cdot B-3\cdot A)+B^2\cdot(2\cdot A\cdot B-A^2+B^2)\right]\right]}\end{matrix}\right] = 0$$

$$R_2 - \frac{\sqrt{2}\cdot\left[\sqrt{(A+B)\cdot\left[(B^3+A\cdot B^2+2\cdot A\cdot B)\cdot\sqrt{2\cdot A\cdot B-3\cdot A^2+B^2}+\left[2\cdot A\cdot(B^2+A\cdot B+A)+B^2\cdot(2\cdot A\cdot B-A^2+B^2)\right]\right]}\ \ldots\right.}{4\cdot\sqrt{(A+B)}\cdot A} \left.\begin{matrix}\\ +\sqrt{(A+B)\cdot\left[(B^3+A\cdot B^2+2\cdot A\cdot B)\cdot\sqrt{2\cdot A\cdot B-3\cdot A^2+B^2}+\left[2\cdot A\cdot(B^2+A\cdot B-3\cdot A)+B^2\cdot(2\cdot A\cdot B-A^2+B^2)\right]\right]}\end{matrix}\right] = 0$$



ab = 1.00000
A = 0.56334
B = 0.86322
N1 = 1.77511
N2 = 1.15845

$R_1 = 2.33513$

$\frac{\sqrt{2}\cdot(N_1+N_2)\cdot(x+y)}{4\cdot N_2^2\cdot\sqrt{(N_1+N_2)^3}} = 2.33513$

$\frac{\sqrt{2}\cdot(w+z)}{4\cdot A\cdot\sqrt{(A+B)}} = 2.33513$

$R_1 - \frac{\sqrt{2}\cdot(N_1+N_2)\cdot(x+y)}{4\cdot N_2^2\cdot\sqrt{(N_1+N_2)^3}} = 0.00000$

$R_1 - \frac{\sqrt{2}\cdot(w+z)}{4\cdot A\cdot\sqrt{(A+B)}} = 0.00000$

$\frac{\sqrt{2}\cdot(w+z)}{4\cdot A\cdot\sqrt{(A+B)}} - \frac{\sqrt{2}\cdot(N_1+N_2)\cdot(x+y)}{4\cdot N_2^2\cdot\sqrt{(N_1+N_2)^3}} = 0.00000$

$R_2 = 0.42824$

$\frac{4\cdot A\cdot\sqrt{(A+B)}}{\sqrt{2}\cdot(w+z)} = 0.42824$

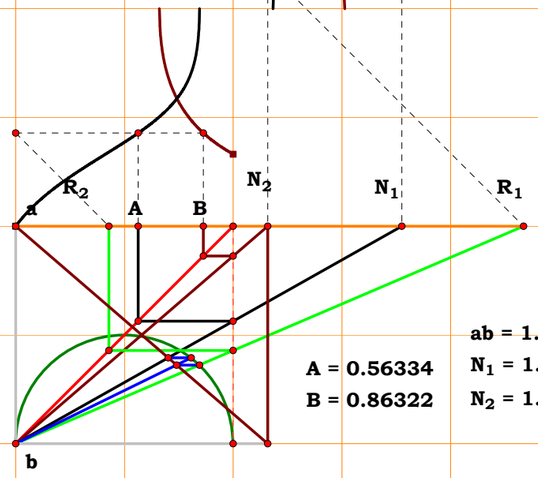
$R_2 - \frac{4\cdot A\cdot\sqrt{(A+B)}}{\sqrt{2}\cdot(w+z)} = 0.00000$

$x - \sqrt{(N_1+N_2)\cdot((N_1^2-N_2^2)+2\cdot N_2\cdot((N_2^2-3\cdot N_2^3)+N_1\cdot N_2+N_1))+\left((N_1+N_2)\cdot\sqrt{(N_1-N_2)\cdot(N_1+3\cdot N_2)}\cdot(2\cdot N_2^2+N_2+N_1)\right)} = 0.00000$

$y - \sqrt{(N_1+N_2)\cdot((N_1^2-N_2^2)+2\cdot N_2\cdot(N_2^2+N_1)\cdot(N_2+1))+\left((N_1+N_2)\cdot\sqrt{(N_1-N_2)\cdot(N_1+3\cdot N_2)\cdot(2\cdot N_2^2+N_2+N_1)}\right)} = 0.00000$

$w - \sqrt{(A+B)\cdot\left(((B^3+A\cdot B^2+2\cdot A\cdot B)\cdot\sqrt{(2\cdot A\cdot B-3\cdot A^2)+B^2}\right)+(2\cdot A\cdot(B^2+A\cdot B+A)+B^2\cdot((2\cdot A\cdot B-A^2)+B^2)))} = 0.00000$

$z - \sqrt{(A+B)\cdot\left(((B^3+A\cdot B^2+2\cdot A\cdot B)\cdot\sqrt{(2\cdot A\cdot B-3\cdot A^2)+B^2}\right)+(2\cdot A\cdot((B^2+A\cdot B)-3\cdot A)+B^2\cdot((2\cdot A\cdot B-A^2)+B^2)))} = 0.00000$



$$x-\sqrt{(N_1+N_2)\cdot((N_1^2-N_2^2)+2\cdot N_2\cdot((N_2^2-3\cdot N_2^3)+N_1\cdot N_2+N_1))+((N_1+N_2)\cdot\sqrt{(N_1-N_2)\cdot(N_1+3\cdot N_2)\cdot(2\cdot N_2^2+N_2+N_1)})} = 0.00000$$

$$y-\sqrt{(N_1+N_2)\cdot((N_1^2-N_2^2)+2\cdot N_2\cdot(N_2^2+N_1)\cdot(N_2+1))+((N_1+N_2)\cdot\sqrt{(N_1-N_2)\cdot(N_1+3\cdot N_2)\cdot(2\cdot N_2^2+N_2+N_1)})} = 0.00000$$

$$w-\sqrt{(A+B)\cdot(((B^3+A\cdot B^2+2\cdot A\cdot B)\cdot\sqrt{(2\cdot A\cdot B-3\cdot A^2)+B^2})+(2\cdot A\cdot(B^2+A\cdot B+A)+B^2\cdot((2\cdot A\cdot B-A^2)+B^2)))} = 0.00000$$

$$z-\sqrt{(A+B)\cdot(((B^3+A\cdot B^2+2\cdot A\cdot B)\cdot\sqrt{(2\cdot A\cdot B-3\cdot A^2)+B^2})+(2\cdot A\cdot((B^2+A\cdot B)-3\cdot A)+B^2\cdot((2\cdot A\cdot B-A^2)+B^2)))} = 0.00000$$

$ab = 1.00000$

$A = 0.56334$

$N_1 = 1.77511$

$B = 0.86322$

$N_2 = 1.15845$

$R_1 = 2.33513$

$$\frac{\sqrt{2}\cdot(N_1+N_2)\cdot(x+y)}{4\cdot N_2^2\cdot\sqrt{(N_1+N_2)^3}} = 2.33513$$

$$\frac{\sqrt{2}\cdot(w+z)}{4\cdot A\cdot\sqrt{(A+B)}} = 2.33513$$

$$R_1-\frac{\sqrt{2}\cdot(N_1+N_2)\cdot(x+y)}{4\cdot N_2^2\cdot\sqrt{(N_1+N_2)^3}} = 0.00000$$

$$R_1-\frac{\sqrt{2}\cdot(w+z)}{4\cdot A\cdot\sqrt{(A+B)}} = 0.00000$$

$$\frac{\sqrt{2}\cdot(w+z)}{4\cdot A\cdot\sqrt{(A+B)}}-\frac{\sqrt{2}\cdot(N_1+N_2)\cdot(x+y)}{4\cdot N_2^2\cdot\sqrt{(N_1+N_2)^3}} = 0.00000$$

$R_2 = 0.42824$

$$\frac{4\cdot A\cdot\sqrt{(A+B)}}{\sqrt{2}\cdot(w+z)} = 0.42824$$

$$R_2-\frac{4\cdot A\cdot\sqrt{(A+B)}}{\sqrt{2}\cdot(w+z)} = 0.00000$$

3OBT3R9

Given.

Unit. $ab := 1$

$N_1 := 3.20588 \quad N_2 := 1.80293$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2}$

Descriptions.

$bh := \frac{N_1 \cdot N_2}{N_1 + N_2} \qquad gh := \frac{bh}{N_1}$

$ef := \sqrt{\left(\frac{1}{2}\right)^2 - gh^2} \qquad be := \frac{1}{2} - ef$

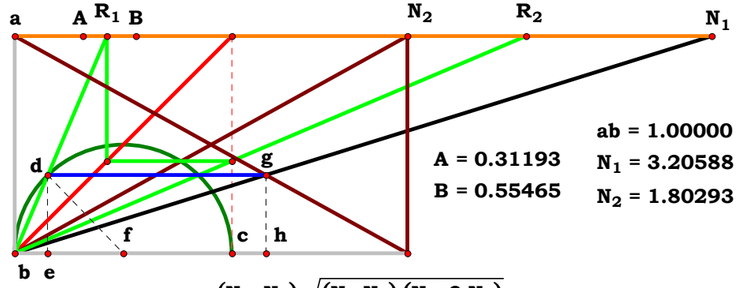
$R_1 := \frac{be}{gh} \qquad R_2 := \frac{1}{R_1} \qquad R_1 = 0.424954$

Definitions.

$$R_1 - \frac{N_1 + N_2 - \sqrt{(N_1 - N_2) \cdot (N_1 + 3 \cdot N_2)}}{2 \cdot N_2} = 0$$

$N_1 - \frac{1}{A} = 0 \qquad N_2 - \frac{1}{B} = 0$

$$R_1 - \frac{A + B - \sqrt{(B - A) \cdot (3 \cdot A + B)}}{2 \cdot A} = 0 \qquad R_2 - \frac{2 \cdot A}{A + B - \sqrt{-(A - B) \cdot (3 \cdot A + B)}} = 0$$



$A = 0.31193$
$B = 0.55465$

$ab = 1.00000$
$N_1 = 3.20588$
$N_2 = 1.80293$

$R_1 = 0.42495$

$$\frac{(N_1+N_2)-\sqrt{(N_1-N_2)\cdot(N_1+3\cdot N_2)}}{2\cdot N_2} = 0.42495$$

$$\frac{((A+B)-\sqrt{(B-A)\cdot(3\cdot A+B)})}{(2\cdot A)} = 0.42495$$

$$R_1 - \frac{(N_1+N_2)-\sqrt{(N_1-N_2)\cdot(N_1+3\cdot N_2)}}{2\cdot N_2} = 0.00000$$

$$R_1 - \frac{((A+B)-\sqrt{(B-A)\cdot(3\cdot A+B)})}{(2\cdot A)} = 0.00000$$

$$\frac{((A+B)-\sqrt{(B-A)\cdot(3\cdot A+B)})}{(2\cdot A)} - \frac{(N_1+N_2)-\sqrt{(N_1-N_2)\cdot(N_1+3\cdot N_2)}}{2\cdot N_2} = 0.00000$$

$R_2 = 2.35319$

$$\frac{(2\cdot A)}{((A+B)-\sqrt{(B-A)\cdot(3\cdot A+B)})} = 2.35319$$

$$R_2 - \frac{(2\cdot A)}{((A+B)-\sqrt{(B-A)\cdot(3\cdot A+B)})} = 0.00000$$

$A = 0.31193$

$B = 0.55465$

$ab = 1.00000$

$N_1 = 3.20588$

$N_2 = 1.80293$

$R_1 = 0.42495$

$$\frac{(N_1+N_2)-\sqrt{(N_1-N_2)\cdot(N_1+3\cdot N_2)}}{2\cdot N_2} = 0.42495$$

$$\frac{((A+B)-\sqrt{(B-A)\cdot(3\cdot A+B)})}{(2\cdot A)} = 0.42495$$

$$R_1-\frac{(N_1+N_2)-\sqrt{(N_1-N_2)\cdot(N_1+3\cdot N_2)}}{2\cdot N_2} = 0.00000$$

$$R_1-\frac{((A+B)-\sqrt{(B-A)\cdot(3\cdot A+B)})}{(2\cdot A)} = 0.00000$$

$$\frac{((A+B)-\sqrt{(B-A)\cdot(3\cdot A+B)})}{(2\cdot A)}-\frac{(N_1+N_2)-\sqrt{(N_1-N_2)\cdot(N_1+3\cdot N_2)}}{2\cdot N_2} = 0.00000$$

$R_2 = 2.35319$

$$\frac{(2\cdot A)}{((A+B)-\sqrt{(B-A)\cdot(3\cdot A+B)})} = 2.35319$$

$$R_2-\frac{(2\cdot A)}{((A+B)-\sqrt{(B-A)\cdot(3\cdot A+B)})} = 0.00000$$

3OBT3R10

Given.

Unit. $ab := 1$

$N_1 := 3.75256 \quad N_2 := 2.34291$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2}$

Descriptions.

$be := \frac{N_1 \cdot N_2}{N_1 + N_2} \qquad de := \frac{be}{N_1}$

$bg := \frac{1}{2} + \sqrt{\left(\frac{1}{2}\right)^2 - de^2} \qquad R_1 := \frac{bg}{1 - de}$

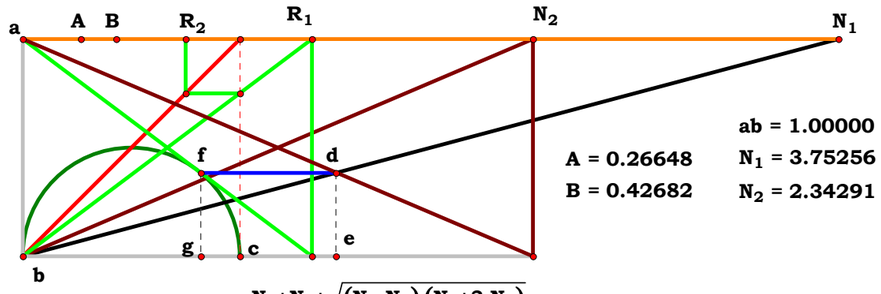
$R_2 := \frac{1}{R_1} \qquad R_1 = 1.331612$

Definitions.

$R_1 - \frac{\sqrt{(N_1 - N_2)\cdot(N_1 + 3\cdot N_2)} + N_1 + N_2}{2\cdot N_1} = 0$

$N_1 - \frac{1}{A} = 0 \qquad N_2 - \frac{1}{B} = 0$

$R_1 - \frac{A + B + \sqrt{(B - A)\cdot(3\cdot A + B)}}{2\cdot B} = 0 \qquad R_2 - \frac{2\cdot B}{A + B + \sqrt{-(A - B)\cdot(3\cdot A + B)}} = 0$



$ab = 1.00000$

$A = 0.26648 \qquad N_1 = 3.75256$

$B = 0.42682 \qquad N_2 = 2.34291$

$R_1 - \frac{N_1 + N_2 + \sqrt{(N_1 - N_2)\cdot(N_1 + 3\cdot N_2)}}{2\cdot N_1} = 0.00000$

$R_1 - \frac{(A + B + \sqrt{(B - A)\cdot(3\cdot A + B)})}{(2\cdot B)} = 0.00000$

$\frac{(A + B + \sqrt{(B - A)\cdot(3\cdot A + B)})}{(2\cdot B)} - \frac{N_1 + N_2 + \sqrt{(N_1 - N_2)\cdot(N_1 + 3\cdot N_2)}}{2\cdot N_1} = 0.00000$

$R_1 = 1.33161$

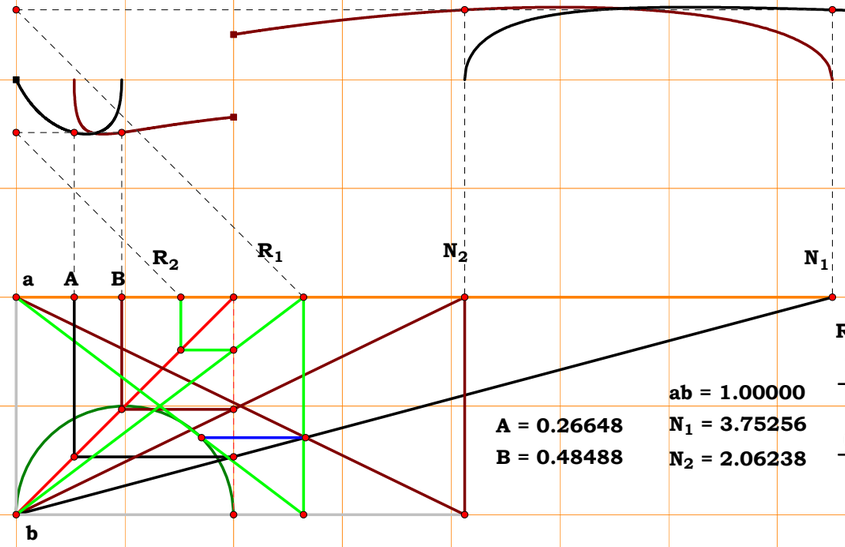
$\frac{N_1 + N_2 + \sqrt{(N_1 - N_2)\cdot(N_1 + 3\cdot N_2)}}{2\cdot N_1} = 1.33161$

$\frac{(A + B + \sqrt{(B - A)\cdot(3\cdot A + B)})}{(2\cdot B)} = 1.33161$

$R_2 = 0.75097$

$\frac{(2\cdot B)}{(A + B + \sqrt{(B - A)\cdot(3\cdot A + B)})} = 0.75097$

$R_2 - \frac{(2\cdot B)}{(A + B + \sqrt{(B - A)\cdot(3\cdot A + B)})} = 0.00000$



A = 0.26648

B = 0.48488

ab = 1.00000

N_1 = 3.75256

N_2 = 2.06238

R_1 = 1.32093

$$\frac{N_1+N_2+\sqrt{(N_1-N_2)\cdot(N_1+3\cdot N_2)}}{2\cdot N_1} = 1.32093$$

$$\frac{(A+B+\sqrt{(B-A)\cdot(3\cdot A+B)})}{(2\cdot B)} = 1.32093$$

$$R_1-\frac{N_1+N_2+\sqrt{(N_1-N_2)\cdot(N_1+3\cdot N_2)}}{2\cdot N_1} = 0.00000$$

$$R_1-\frac{(A+B+\sqrt{(B-A)\cdot(3\cdot A+B)})}{(2\cdot B)} = 0.00000$$

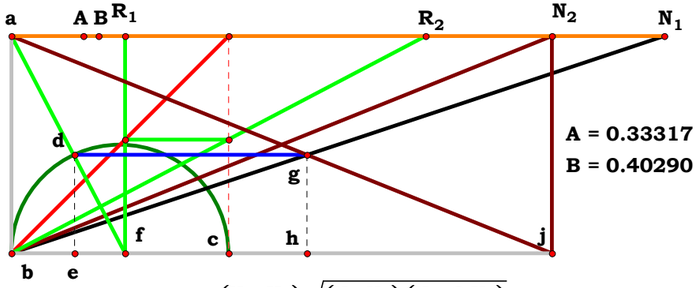
$$\frac{(A+B+\sqrt{(B-A)\cdot(3\cdot A+B)})}{(2\cdot B)}-\frac{N_1+N_2+\sqrt{(N_1-N_2)\cdot(N_1+3\cdot N_2)}}{2\cdot N_1} = 0.00000$$

R_2 = 0.75704

$$\frac{(2\cdot B)}{(A+B+\sqrt{(B-A)\cdot(3\cdot A+B)})} = 0.75704$$

$$R_2-\frac{(2\cdot B)}{(A+B+\sqrt{(B-A)\cdot(3\cdot A+B)})} = 0.00000$$

3OBT3R11



A = 0.33317
B = 0.40290

ab = 1.00000
N1 = 3.00146
N2 = 2.48203

R1 = 0.52540

$$\frac{(N_1+N_2)-\sqrt{(N_1-N_2)\cdot(N_1+3\cdot N_2)}}{2\cdot N_1} = 0.52540$$

$$\frac{((A+B)-\sqrt{(B-A)\cdot(3\cdot A+B)})}{(2\cdot B)} = 0.52540$$

Given.

Unit. $ab := 1$

$N_1 := 3.00146 \quad N_2 := 2.48203$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2}$

Descriptions.

$bh := \frac{N_1 \cdot N_2}{N_1 + N_2} \quad gh := \frac{bh}{N_1}$

$be := \frac{1}{2} - \sqrt{\left(\frac{1}{2}\right)^2 - gh^2} \quad R_1 := \frac{be}{1 - gh}$

$R_2 := \frac{1}{R_1} \quad R_1 = 0.525402$

$$R_1 - \frac{(N_1+N_2)-\sqrt{(N_1-N_2)\cdot(N_1+3\cdot N_2)}}{2\cdot N_1} = 0.00000$$

$$R_1 - \frac{((A+B)-\sqrt{(B-A)\cdot(3\cdot A+B)})}{(2\cdot B)} = 0.00000$$

$$\frac{((A+B)-\sqrt{(B-A)\cdot(3\cdot A+B)})}{(2\cdot B)} - \frac{(N_1+N_2)-\sqrt{(N_1-N_2)\cdot(N_1+3\cdot N_2)}}{2\cdot N_1} = 0.00000$$

R2 = 1.90331

$$\frac{(2\cdot B)}{((A+B)-\sqrt{(B-A)\cdot(3\cdot A+B)})} = 1.90331$$

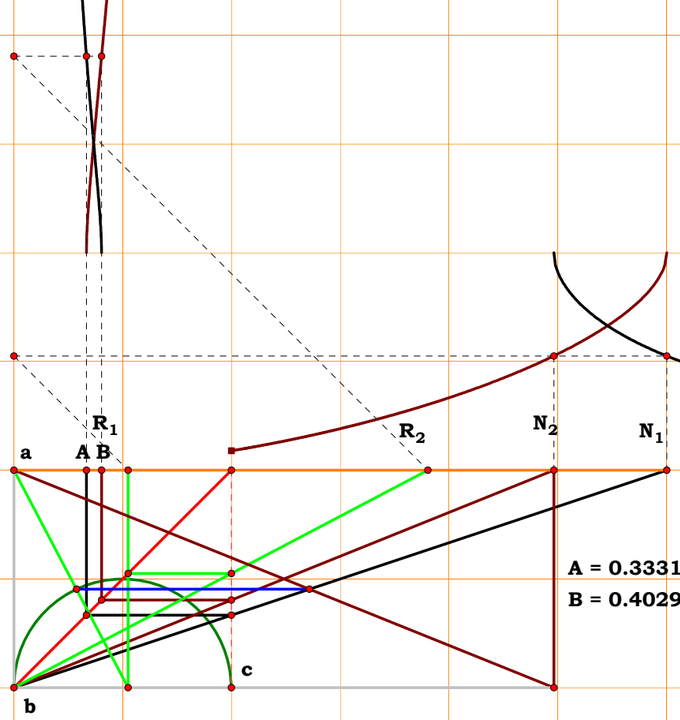
$$R_2 - \frac{(2\cdot B)}{((A+B)-\sqrt{(B-A)\cdot(3\cdot A+B)})} = 0.00000$$

Definitions.

$$R_1 - \frac{N_1 + N_2 - \sqrt{(N_1 - N_2)\cdot(N_1 + 3\cdot N_2)}}{2\cdot N_1} = 0$$

$N_1 - \frac{1}{A} = 0 \quad N_2 - \frac{1}{B} = 0$

$$R_1 - \frac{A + B - \sqrt{(B - A)\cdot(3\cdot A + B)}}{2\cdot B} = 0 \qquad R_2 - \frac{2\cdot B}{A + B - \sqrt{(B - A)\cdot(3\cdot A + B)}} = 0$$



ab = 1.00000

A = 0.33317 N_1 = 3.00146

B = 0.40290 N_2 = 2.48203

$R_1 = 0.52540$

$$\frac{(N_1+N_2)-\sqrt{(N_1-N_2)\cdot(N_1+3\cdot N_2)}}{2\cdot N_1} = 0.52540$$

$$\frac{((A+B)-\sqrt{(B-A)\cdot(3\cdot A+B)})}{(2\cdot B)} = 0.52540$$

$$R_1-\frac{(N_1+N_2)-\sqrt{(N_1-N_2)\cdot(N_1+3\cdot N_2)}}{2\cdot N_1} = 0.00000$$

$$R_1-\frac{((A+B)-\sqrt{(B-A)\cdot(3\cdot A+B)})}{(2\cdot B)} = 0.00000$$

$$\frac{((A+B)-\sqrt{(B-A)\cdot(3\cdot A+B)})}{(2\cdot B)}-\frac{(N_1+N_2)-\sqrt{(N_1-N_2)\cdot(N_1+3\cdot N_2)}}{2\cdot N_1} = 0.00000$$

$R_2 = 1.90331$

$$\frac{(2\cdot B)}{((A+B)-\sqrt{(B-A)\cdot(3\cdot A+B)})} = 1.90331$$

$$R_2-\frac{(2\cdot B)}{((A+B)-\sqrt{(B-A)\cdot(3\cdot A+B)})} = 0.00000$$

3OBT3R12

Given.

Unit. $ab := 1$

$N_1 := 2.90903 \quad N_2 := 2.04987$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2}$

Descriptions.

$bN_1 := \sqrt{1 + N_1^2} \quad bd := \frac{N_1}{bN_1} \quad bf := \frac{N_1 \cdot bd}{bN_1}$

$ef := \frac{(N_2 - bf)}{N_2} \quad R_1 := \frac{bf}{ef}$

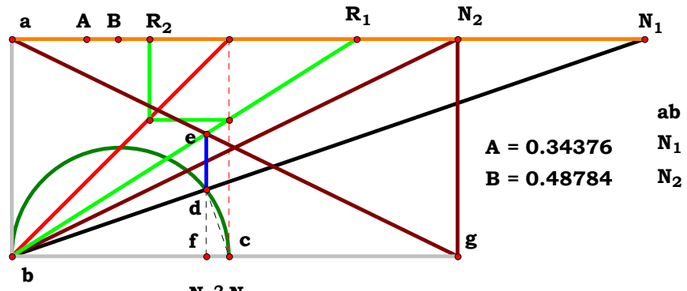
$R_2 := \frac{1}{R_1} \quad R_1 = 1.586463$

Definitions.

$R_1 - \frac{N_1^2 \cdot N_2}{N_1^2 \cdot N_2 - N_1^2 + N_2} = 0$

$N_1 - \frac{1}{A} = 0 \quad N_2 - \frac{1}{B} = 0$

$R_1 - \frac{1}{A^2 + 1 - B} = 0 \quad R_2 - (A^2 - B + 1) = 0$



A = 0.34376
B = 0.48784

ab = 1.00000
N_1 = 2.90903
N_2 = 2.04987

$R_1 = 1.58646$

$\frac{N_1^2 \cdot N_2}{(N_1^2 \cdot N_2 - N_1^2) + N_2} = 1.58646$

$\frac{1}{((A^2+1)-B)} = 1.58646$

$R_1 - \frac{N_1^2 \cdot N_2}{(N_1^2 \cdot N_2 - N_1^2) + N_2} = 0.00000$

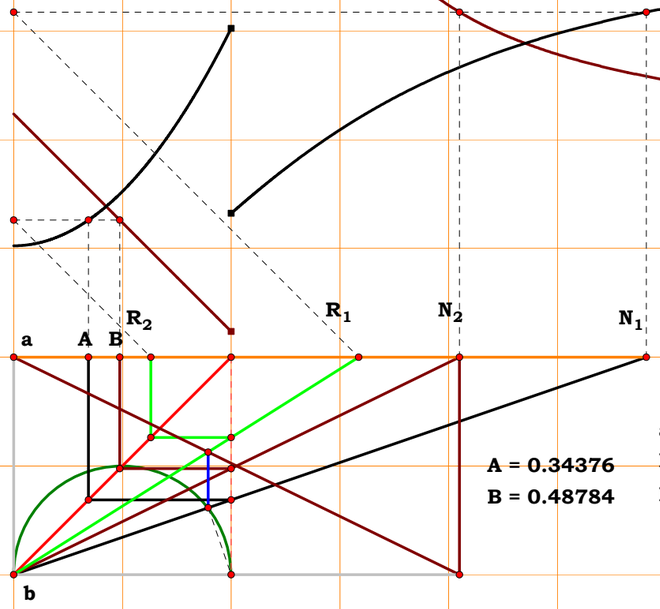
$R_1 - \frac{1}{((A^2+1)-B)} = 0.00000$

$\frac{1}{((A^2+1)-B)} - \frac{N_1^2 \cdot N_2}{(N_1^2 \cdot N_2 - N_1^2) + N_2} = 0.00000$

$R_2 = 0.63033$

$(A^2+1)-B = 0.63033$

$R_2 - ((A^2+1)-B) = 0.00000$



A = 0.34376
B = 0.48784

ab = 1.00000
N_1 = 2.90903
N_2 = 2.04987

R_1 = 1.58646

$$\frac{N_1^2 \cdot N_2}{(N_1^2 \cdot N_2 - N_1^2) + N_2} = 1.58646$$

$$\frac{1}{((A^2+1)-B)} = 1.58646$$

$$R_1 - \frac{N_1^2 \cdot N_2}{(N_1^2 \cdot N_2 - N_1^2) + N_2} = 0.00000$$

$$R_1 - \frac{1}{((A^2+1)-B)} = 0.00000$$

$$\frac{1}{((A^2+1)-B)} - \frac{N_1^2 \cdot N_2}{(N_1^2 \cdot N_2 - N_1^2) + N_2} = 0.00000$$

R_2 = 0.63033

$(A^2+1)-B$ = 0.63033

$R_2 - ((A^2+1)-B)$ = 0.00000

3OBT3R13

Given.

Unit. $ab := 1$

$N_1 := 3.17556 \quad N_2 := 1.45682$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2}$

Descriptions.

$bN_1 := \sqrt{1 + N_1^2} \quad be := \frac{N_1}{bN_1} \quad bg := \frac{N_1 \cdot be}{bN_1}$

$gk := N_2 - bg \quad fg := \frac{gk}{N_2} \quad dj := \sqrt{\left(\frac{1}{2}\right)^2 - fg^2}$

$bj := \frac{1}{2} + dj \quad R_1 := \frac{bj}{fg} \quad R_2 := \frac{1}{R_1}$

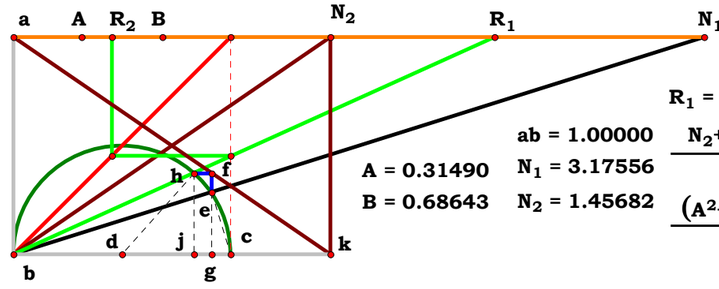
$R_1 = 2.210772$

Definitions.

$$R_1 - \frac{N_2 + N_1^2 \cdot N_2 + \sqrt{\left[N_2 \cdot \left(N_1^2 + 1\right) - 2 \cdot N_1^2\right] \cdot \left[2 \cdot N_1^2 - 3 \cdot N_2 \cdot \left(N_1^2 + 1\right)\right]}}{2 \cdot \left(N_2 + N_1^2 \cdot N_2 - N_1^2\right)} = 0$$

$N_1 - \frac{1}{A} = 0 \qquad N_2 - \frac{1}{B} = 0$

$$R_1 - \frac{\sqrt{\left(3 \cdot A^2 + 3 - 2 \cdot B\right) \cdot \left(2 \cdot B - 1 - A^2\right)} + A^2 + 1}{2 \cdot \left(A^2 + 1 - B\right)} = 0 \qquad R_2 - \frac{2 \cdot \left(A^2 - B + 1\right)}{\sqrt{\left(3 \cdot A^2 + 3 - 2 \cdot B\right) \cdot \left(2 \cdot B - 1 - A^2\right)} + A^2 + 1} = 0$$



$A = 0.31490$
$B = 0.68643$

$ab = 1.00000$
$N_1 = 3.17556$
$N_2 = 1.45682$

$R_1 = 2.21077$

$$\frac{N_2 + N_1^2 \cdot N_2 + \sqrt{\left(N_2 \cdot \left(N_1^2 + 1\right) - 2 \cdot N_1^2\right) \cdot \left(2 \cdot N_1^2 - 3 \cdot N_2 \cdot \left(N_1^2 + 1\right)\right)}}{2 \cdot \left(\left(N_1^2 \cdot N_2 + N_2\right) - N_1^2\right)} = 2.21077$$

$$\frac{\left(A^2 + 1 + \sqrt{\left(\left(3 \cdot A^2 + 3\right) - 2 \cdot B\right) \cdot \left(2 \cdot B - 1 - A^2\right)}\right)}{\left(2 \cdot \left(\left(A^2 + 1\right) - B\right)\right)} = 2.21077$$

$$R_1 - \frac{N_2 + N_1^2 \cdot N_2 + \sqrt{\left(N_2 \cdot \left(N_1^2 + 1\right) - 2 \cdot N_1^2\right) \cdot \left(2 \cdot N_1^2 - 3 \cdot N_2 \cdot \left(N_1^2 + 1\right)\right)}}{2 \cdot \left(\left(N_1^2 \cdot N_2 + N_2\right) - N_1^2\right)} = 0.00000$$

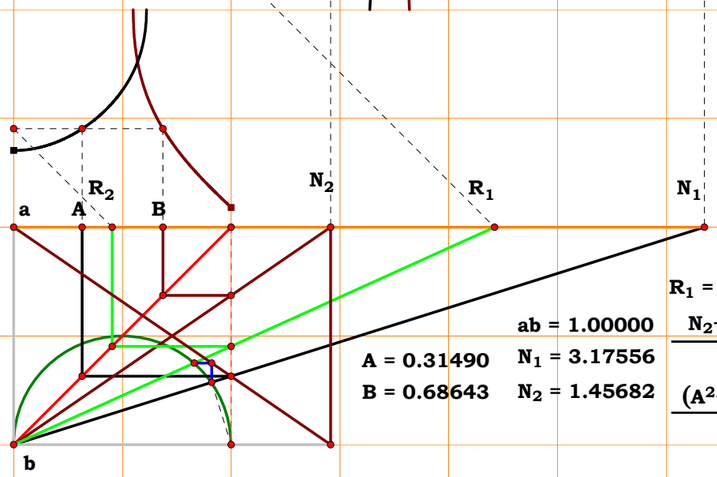
$$R_1 - \frac{\left(A^2 + 1 + \sqrt{\left(\left(3 \cdot A^2 + 3\right) - 2 \cdot B\right) \cdot \left(2 \cdot B - 1 - A^2\right)}\right)}{\left(2 \cdot \left(\left(A^2 + 1\right) - B\right)\right)} = 0.00000$$

$$\frac{\left(A^2 + 1 + \sqrt{\left(\left(3 \cdot A^2 + 3\right) - 2 \cdot B\right) \cdot \left(2 \cdot B - 1 - A^2\right)}\right)}{\left(2 \cdot \left(\left(A^2 + 1\right) - B\right)\right)} - \frac{N_2 + N_1^2 \cdot N_2 + \sqrt{\left(N_2 \cdot \left(N_1^2 + 1\right) - 2 \cdot N_1^2\right) \cdot \left(2 \cdot N_1^2 - 3 \cdot N_2 \cdot \left(N_1^2 + 1\right)\right)}}{2 \cdot \left(\left(N_1^2 \cdot N_2 + N_2\right) - N_1^2\right)} = 0.00000$$

$R_2 = 0.45233$

$$\frac{\left(2 \cdot \left(\left(A^2 + 1\right) - B\right)\right)}{\left(A^2 + 1 + \sqrt{\left(\left(3 \cdot A^2 + 3\right) - 2 \cdot B\right) \cdot \left(2 \cdot B - 1 - A^2\right)}\right)} = 0.45233$$

$$R_2 - \frac{\left(2 \cdot \left(\left(A^2 + 1\right) - B\right)\right)}{\left(A^2 + 1 + \sqrt{\left(\left(3 \cdot A^2 + 3\right) - 2 \cdot B\right) \cdot \left(2 \cdot B - 1 - A^2\right)}\right)} = 0.00000$$



$$R_1 - \frac{N_2+N_1^2\cdot N_2+\sqrt{(N_2\cdot(N_1^2+1)-2\cdot N_1^2)\cdot(2\cdot N_1^2-3\cdot N_2\cdot(N_1^2+1))}}{2\cdot((N_1^2\cdot N_2+N_2)-N_1^2)} = 0.00000$$

$$R_1 - \frac{(A^2+1+\sqrt{((3\cdot A^2+3)-2\cdot B)\cdot(2\cdot B-1-A^2)})}{(2\cdot((A^2+1)-B))} = 0.00000$$

$$\frac{(A^2+1+\sqrt{((3\cdot A^2+3)-2\cdot B)\cdot(2\cdot B-1-A^2)})}{(2\cdot((A^2+1)-B))} - \frac{N_2+N_1^2\cdot N_2+\sqrt{(N_2\cdot(N_1^2+1)-2\cdot N_1^2)\cdot(2\cdot N_1^2-3\cdot N_2\cdot(N_1^2+1))}}{2\cdot((N_1^2\cdot N_2+N_2)-N_1^2)} = 0.00000$$

ab = 1.00000

A = 0.31490

B = 0.68643

N_1 = 3.17556

N_2 = 1.45682

R_1 = 2.21077

$$\frac{N_2+N_1^2\cdot N_2+\sqrt{(N_2\cdot(N_1^2+1)-2\cdot N_1^2)\cdot(2\cdot N_1^2-3\cdot N_2\cdot(N_1^2+1))}}{2\cdot((N_1^2\cdot N_2+N_2)-N_1^2)} = 2.21077$$

$$\frac{(A^2+1+\sqrt{((3\cdot A^2+3)-2\cdot B)\cdot(2\cdot B-1-A^2)})}{(2\cdot((A^2+1)-B))} = 2.21077$$

R_2 = 0.45233

$$\frac{(2\cdot((A^2+1)-B))}{(A^2+1+\sqrt{((3\cdot A^2+3)-2\cdot B)\cdot(2\cdot B-1-A^2)})} = 0.45233$$

$$R_2 - \frac{(2\cdot((A^2+1)-B))}{(A^2+1+\sqrt{((3\cdot A^2+3)-2\cdot B)\cdot(2\cdot B-1-A^2)})} = 0.00000$$

3OBT3R14

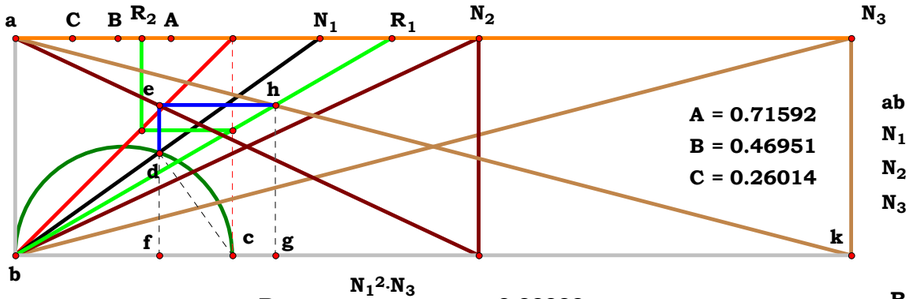
Given.

Unit. $ab := 1$

$N_1 := 1.39680 \quad N_2 := 2.12987$

$N_3 := 3.84403$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2} \quad C := \frac{1}{N_3}$



$ab = 1.00000$
$N_1 = 1.39680$
$N_2 = 2.12987$
$N_3 = 3.84403$

$R_1 = 1.73035$

$\frac{N_1^2 \cdot N_3}{(N_1^2 \cdot N_2 + N_2) - N_1^2} = 1.73035$

$\frac{B}{(C \cdot ((A^2+1) - B))} = 1.73035$

$R_1 - \frac{N_1^2 \cdot N_3}{(N_1^2 \cdot N_2 + N_2) - N_1^2} = 0.00000$

$R_1 - \frac{B}{(C \cdot ((A^2+1) - B))} = 0.00000$

$\frac{B}{(C \cdot ((A^2+1) - B))} - \frac{N_1^2 \cdot N_3}{(N_1^2 \cdot N_2 + N_2) - N_1^2} = 0.00000$

$R_2 = 0.57792$

$\frac{(C \cdot ((A^2+1) - B))}{B} = 0.57792$

$R_2 - \frac{(C \cdot ((A^2+1) - B))}{B} = 0.00000$

Descriptions.

$bN_1 := \sqrt{1 + N_1^2} \quad bd := \frac{N_1}{bN_1} \quad bf := \frac{N_1 \cdot bd}{bN_1}$

$ef := \frac{bf}{N_2} \quad bg := \frac{bf \cdot N_3}{N_2} \quad R_1 := \frac{bg}{1 - ef}$

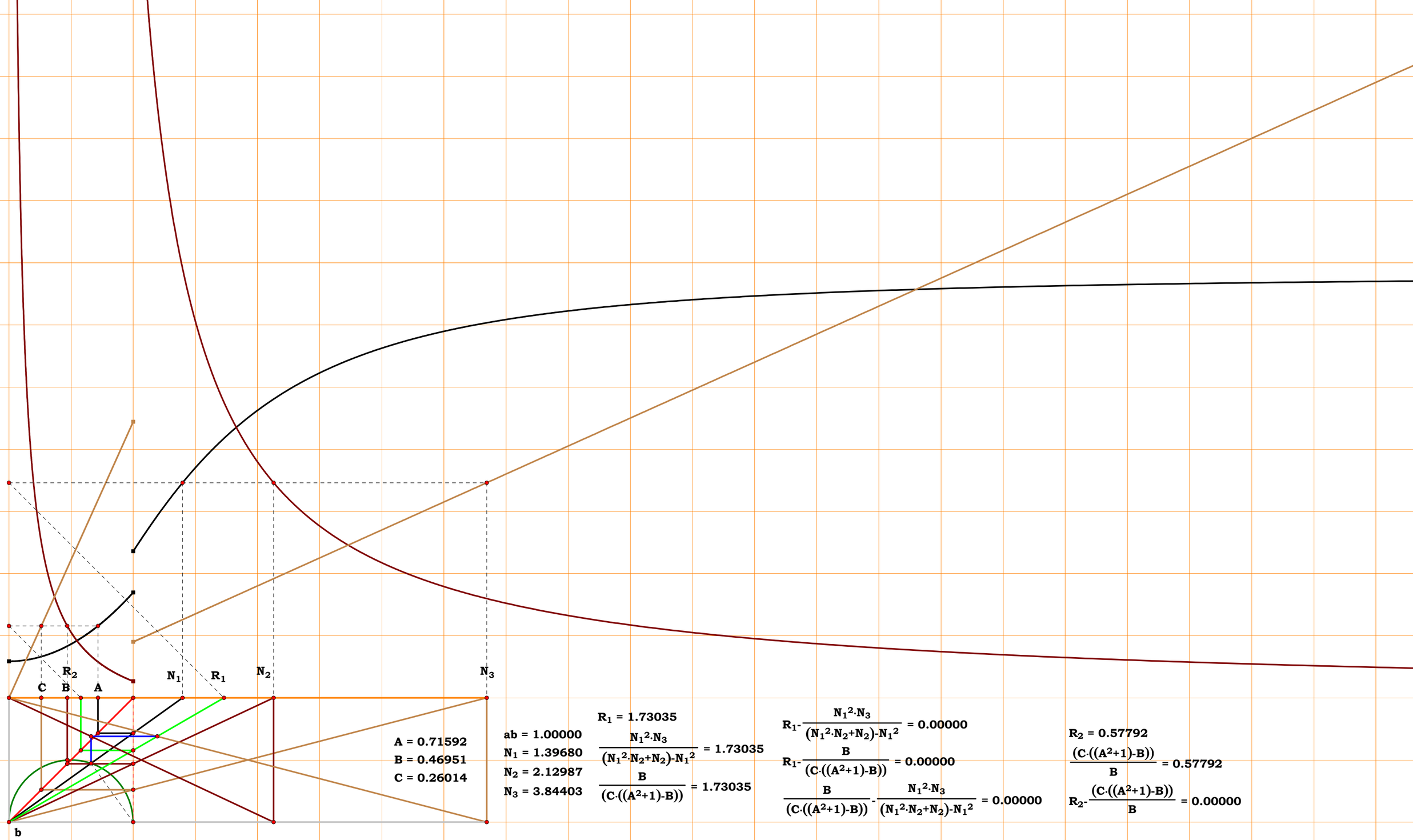
$R_2 := \frac{1}{R_1} \quad R_1 = 1.730358$

Definitions.

$R_1 - \frac{N_1^2 \cdot N_3}{N_2 + N_1^2 \cdot N_2 - N_1^2} = 0$

$N_1 - \frac{1}{A} = 0 \quad N_2 - \frac{1}{B} = 0 \quad N_3 - \frac{1}{C} = 0$

$R_1 - \frac{B}{C \cdot (A^2 + 1 - B)} = 0 \quad R_2 - \frac{C \cdot (A^2 - B + 1)}{B} = 0$



A = 0.71592
B = 0.46951
C = 0.26014

ab = 1.00000
N_1 = 1.39680
N_2 = 2.12987
N_3 = 3.84403

R_1 = 1.73035

$$\frac{N_1^2 \cdot N_3}{(N_1^2 \cdot N_2 + N_2) - N_1^2} = 1.73035$$

$$\frac{B}{(C \cdot ((A^2+1) - B))} = 1.73035$$

$$R_1 - \frac{N_1^2 \cdot N_3}{(N_1^2 \cdot N_2 + N_2) - N_1^2} = 0.00000$$

$$R_1 - \frac{B}{(C \cdot ((A^2+1) - B))} = 0.00000$$

$$\frac{B}{(C \cdot ((A^2+1) - B))} - \frac{N_1^2 \cdot N_3}{(N_1^2 \cdot N_2 + N_2) - N_1^2} = 0.00000$$

R_2 = 0.57792

$$\frac{(C \cdot ((A^2+1) - B))}{B} = 0.57792$$

$$R_2 - \frac{(C \cdot ((A^2+1) - B))}{B} = 0.00000$$

3OBT4R0

Given.

Unit. $ab := 1$

$N_1 := 1.94829 \quad N_2 := 3.59520$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2}$

Descriptions.

$bN_1 := \sqrt{1 + N_1^2} \quad bf := \frac{N_1}{bN_1} \quad fg := \frac{bf}{bN_1}$

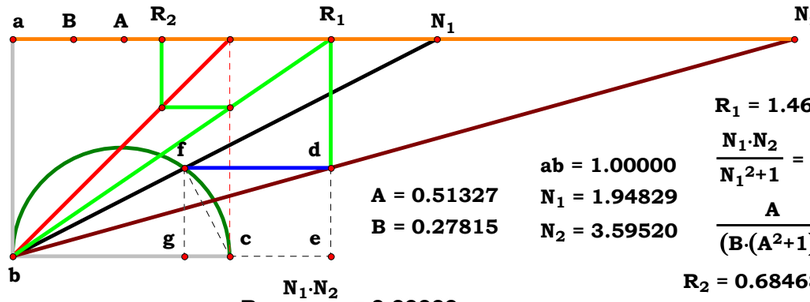
$R_1 := N_2 \cdot fg \quad R_2 := \frac{1}{R_1} \quad R_1 = 1.460537$

Definitions.

$$R_1 - \frac{N_1 \cdot N_2}{N_1^2 + 1} = 0$$

$$N_1 - \frac{1}{A} = 0 \qquad N_2 - \frac{1}{B} = 0$$

$$R_1 - \frac{A}{B \cdot \left(A^2 + 1\right)} = 0 \qquad R_2 - \frac{B \cdot \left(A^2 + 1\right)}{A} = 0$$



$ab = 1.00000$
$N_1 = 1.94829$
$N_2 = 3.59520$
$A = 0.51327$
$B = 0.27815$

$R_1 = 1.46054$

$\frac{N_1 \cdot N_2}{N_1^2+1} = 1.46054$

$\frac{A}{(B \cdot (A^2+1))} = 1.46054$

$R_2 = 0.68468$

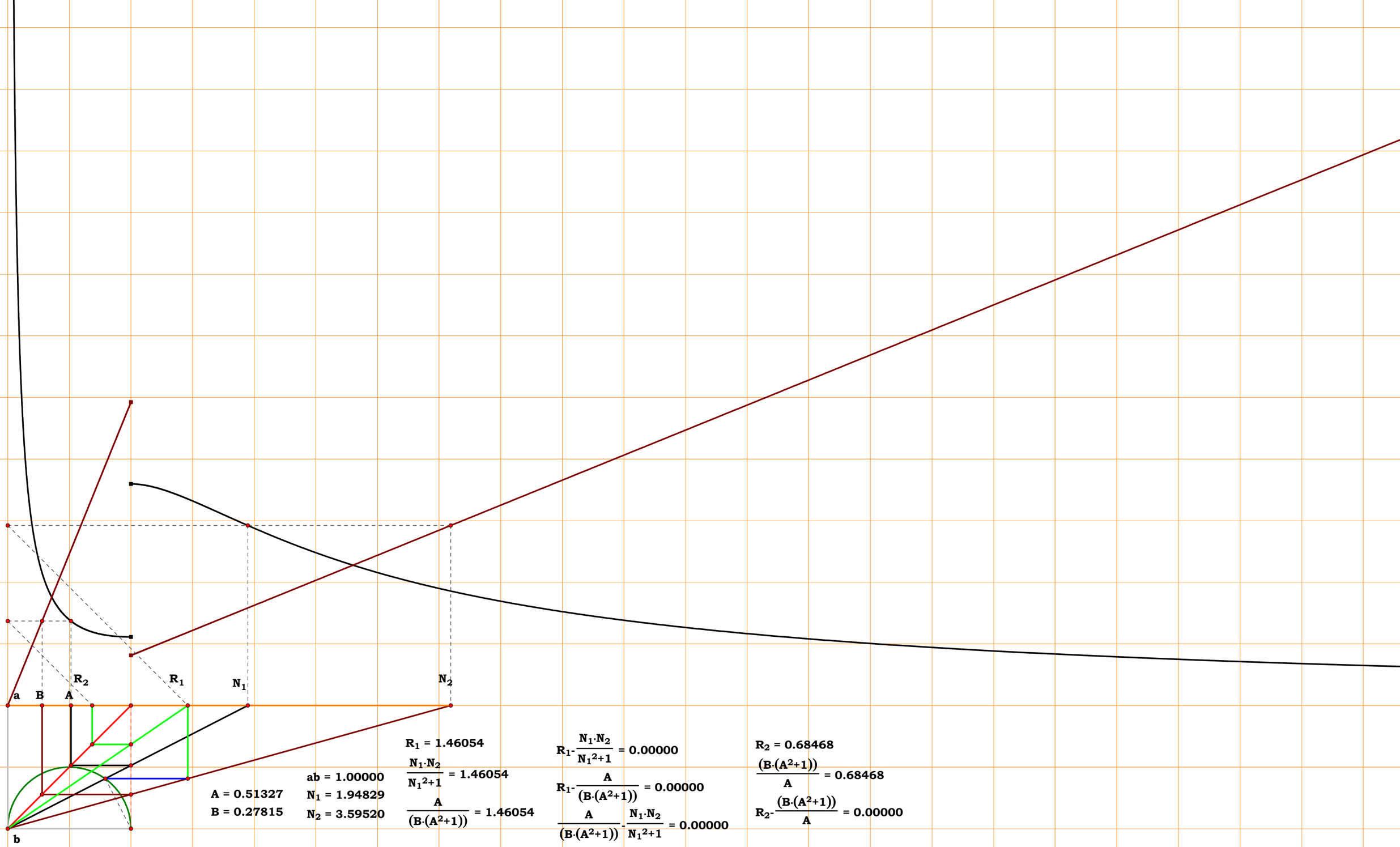
$\frac{(B \cdot (A^2+1))}{A} = 0.68468$

$R_1 - \frac{N_1 \cdot N_2}{N_1^2+1} = 0.00000$

$R_1 - \frac{A}{(B \cdot (A^2+1))} = 0.00000$

$R_2 - \frac{(B \cdot (A^2+1))}{A} = 0.00000$

$\frac{A}{(B \cdot (A^2+1))} - \frac{N_1 \cdot N_2}{N_1^2+1} = 0.00000$



A = 0.51327
B = 0.27815

ab = 1.00000
N_1 = 1.94829
N_2 = 3.59520

R_1 = 1.46054

$$\frac{N_1 \cdot N_2}{N_1^2+1} = 1.46054$$

$$\frac{A}{(B\cdot(A^2+1))} = 1.46054$$

$$R_1 - \frac{N_1 \cdot N_2}{N_1^2+1} = 0.00000$$

$$R_1 - \frac{A}{(B\cdot(A^2+1))} = 0.00000$$

$$\frac{A}{(B\cdot(A^2+1))} - \frac{N_1 \cdot N_2}{N_1^2+1} = 0.00000$$

R_2 = 0.68468

$$\frac{(B\cdot(A^2+1))}{A} = 0.68468$$

$$R_2 - \frac{(B\cdot(A^2+1))}{A} = 0.00000$$

3OBT4R1

Given.

Unit. $ab := 1$ $N_1 := 2.323222$

$N_2 := 1.34498$ $N_3 := 3.48606$

$A := \frac{1}{N_1}$ $B := \frac{1}{N_2}$ $C := \frac{1}{N_3}$

Descriptions.

$bN_1 := \sqrt{1 + N_1^2}$ $bd := \frac{N_1}{bN_1}$ $de := \frac{bd}{bN_1}$

$bf := N_2 \cdot de$ $hf := \sqrt{bf \cdot (1 - bf)}$

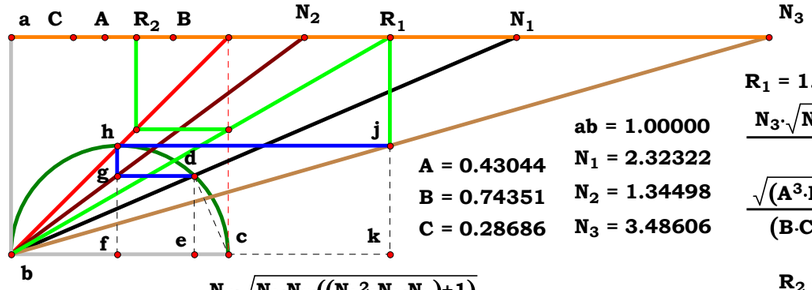
$R_1 := N_3 \cdot hf$ $R_2 := \frac{1}{R_1}$ $R_1 = 1.742564$

Definitions.

$$R_1 - \frac{N_3 \cdot \sqrt{N_1 \cdot N_2 \cdot \left(N_1^2 - N_1 \cdot N_2 + 1\right)}}{N_1^2 + 1} = 0$$

$N_1 - \frac{1}{A} = 0$ $N_2 - \frac{1}{B} = 0$ $N_3 - \frac{1}{C} = 0$

$$R_1 - \frac{\sqrt{A} \cdot \sqrt{B \cdot A^2 - A + B}}{B \cdot C \cdot \left(A^2 + 1\right)} = 0 \qquad R_2 - \frac{B \cdot C \cdot \left(A^2 + 1\right)}{\sqrt{A} \cdot \sqrt{B \cdot A^2 - A + B}} = 0$$



$A = 0.43044$ $ab = 1.00000$ $R_1 = 1.74257$

$B = 0.74351$ $N_1 = 2.32322$ $\frac{N_3 \cdot \sqrt{N_1 \cdot N_2 \cdot ((N_1^2 - N_1 \cdot N_2) + 1)}}{N_1^2 + 1} = 1.74257$

$C = 0.28686$ $N_2 = 1.34498$ $\frac{\sqrt{(A^3 \cdot B - A^2) + A \cdot B}}{(B \cdot C \cdot (A^2 + 1))} = 1.74257$

$N_3 = 3.48606$

$$R_1 - \frac{N_3 \cdot \sqrt{N_1 \cdot N_2 \cdot ((N_1^2 - N_1 \cdot N_2) + 1)}}{N_1^2 + 1} = 0.00000$$

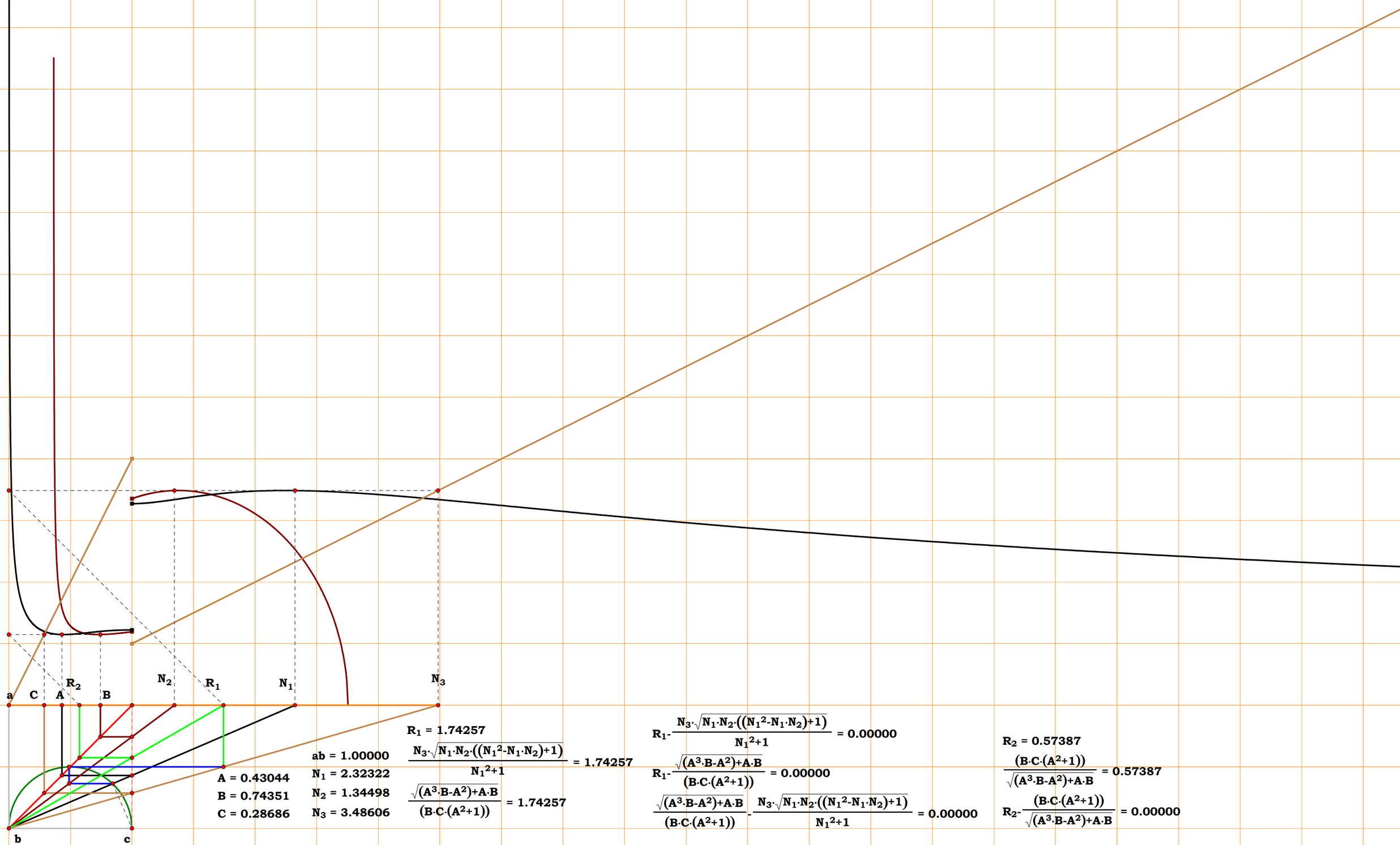
$$R_1 - \frac{\sqrt{(A^3 \cdot B - A^2) + A \cdot B}}{(B \cdot C \cdot (A^2 + 1))} = 0.00000$$

$$\frac{\sqrt{(A^3 \cdot B - A^2) + A \cdot B}}{(B \cdot C \cdot (A^2 + 1))} - \frac{N_3 \cdot \sqrt{N_1 \cdot N_2 \cdot ((N_1^2 - N_1 \cdot N_2) + 1)}}{N_1^2 + 1} = 0.00000$$

$R_2 = 0.57387$

$$\frac{(B \cdot C \cdot (A^2 + 1))}{\sqrt{(A^3 \cdot B - A^2) + A \cdot B}} = 0.57387$$

$$R_2 - \frac{(B \cdot C \cdot (A^2 + 1))}{\sqrt{(A^3 \cdot B - A^2) + A \cdot B}} = 0.00000$$



$A = 0.43044$
$B = 0.74351$
$C = 0.28686$

$ab = 1.00000$
$N_1 = 2.32322$
$N_2 = 1.34498$
$N_3 = 3.48606$

$R_1 = 1.74257$

$$\frac{N_3\cdot\sqrt{N_1\cdot N_2\cdot((N_1^2-N_1\cdot N_2)+1)}}{N_1^2+1} = 1.74257$$

$$\frac{\sqrt{(A^3\cdot B-A^2)+A\cdot B}}{(B\cdot C\cdot(A^2+1))} = 1.74257$$

$$R_1-\frac{N_3\cdot\sqrt{N_1\cdot N_2\cdot((N_1^2-N_1\cdot N_2)+1)}}{N_1^2+1} = 0.00000$$

$$R_1-\frac{\sqrt{(A^3\cdot B-A^2)+A\cdot B}}{(B\cdot C\cdot(A^2+1))} = 0.00000$$

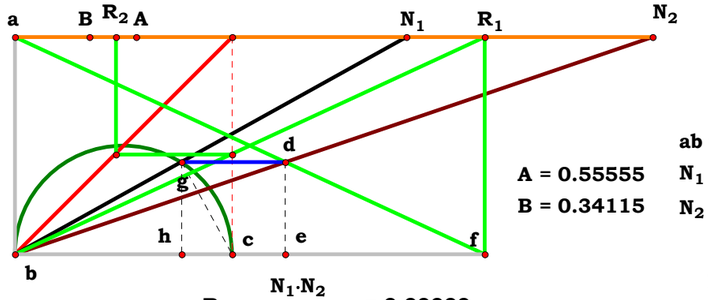
$$\frac{\sqrt{(A^3\cdot B-A^2)+A\cdot B}}{(B\cdot C\cdot(A^2+1))}-\frac{N_3\cdot\sqrt{N_1\cdot N_2\cdot((N_1^2-N_1\cdot N_2)+1)}}{N_1^2+1} = 0.00000$$

$R_2 = 0.57387$

$$\frac{(B\cdot C\cdot(A^2+1))}{\sqrt{(A^3\cdot B-A^2)+A\cdot B}} = 0.57387$$

$$R_2-\frac{(B\cdot C\cdot(A^2+1))}{\sqrt{(A^3\cdot B-A^2)+A\cdot B}} = 0.00000$$

3OBT4R2



Given.

Unit. $ab := 1$

$N_1 := 1.80003 \quad N_2 := 2.93124$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2}$

Descriptions.

$bN_1 := \sqrt{1 + N_1^2} \quad bg := \frac{N_1}{bN_1} \quad gh := \frac{bg}{bN_1}$

$be := N_2 \cdot gh \quad R_1 := \frac{be}{1 - gh} \quad R_2 := \frac{1}{R_1}$

$R_2 := \frac{1}{R_1} \quad R_1 = 2.162357$

Definitions.

$R_1 - \frac{N_1 \cdot N_2}{N_1^2 - N_1 + 1} = 0$

$N_1 - \frac{1}{A} = 0 \quad N_2 - \frac{1}{B} = 0$

$R_1 - \frac{A}{B \cdot (A^2 - A + 1)} = 0 \quad R_2 - \frac{B \cdot (A^2 - A + 1)}{A} = 0$

$A = 0.55555$
$B = 0.34115$

$R_1 - \frac{N_1 \cdot N_2}{(N_1^2 - N_1) + 1} = 0.00000$

$R_1 - \frac{A}{B \cdot ((A^2 - A) + 1)} = 0.00000$

$\frac{A}{B \cdot ((A^2 - A) + 1)} - \frac{N_1 \cdot N_2}{(N_1^2 - N_1) + 1} = 0.00000$

$R_1 = 2.16236$

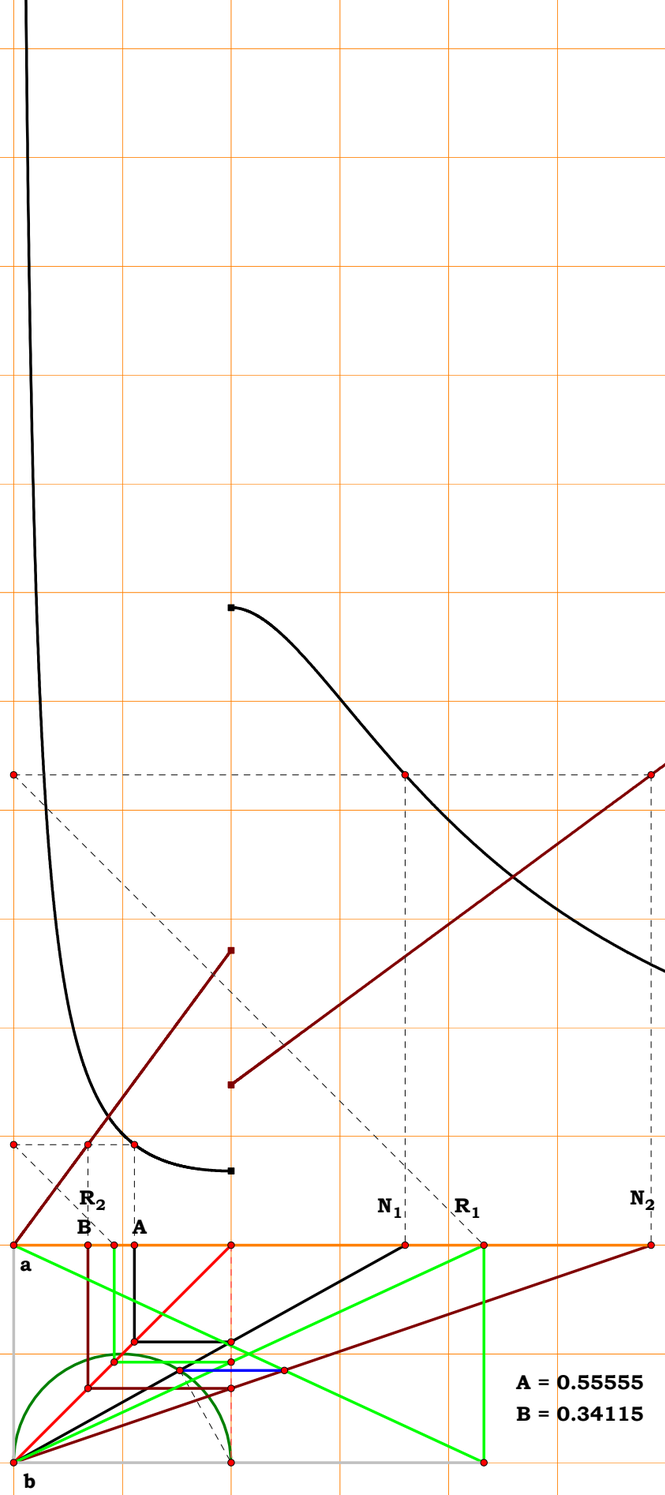
$ab = 1.00000 \quad \frac{N_1 \cdot N_2}{(N_1^2 - N_1) + 1} = 2.16236$

$N_1 = 1.80003 \quad N_2 = 2.93124 \quad \frac{A}{B \cdot ((A^2 - A) + 1)} = 2.16236$

$R_2 = 0.46246$

$\frac{B \cdot ((A^2 - A) + 1)}{A} = 0.46246$

$R_2 - \frac{B \cdot ((A^2 - A) + 1)}{A} = 0.00000$



A = 0.55555
B = 0.34115

ab = 1.00000
N_1 = 1.80003
N_2 = 2.93124

R_1 = 2.16236

$$\frac{N_1 \cdot N_2}{(N_1^2 - N_1)+1} = 2.16236$$

$$\frac{A}{B\cdot((A^2 - A)+1)} = 2.16236$$

$$R_1 - \frac{N_1 \cdot N_2}{(N_1^2 - N_1)+1} = 0.00000$$

$$R_1 - \frac{A}{B\cdot((A^2 - A)+1)} = 0.00000$$

$$\frac{A}{B\cdot((A^2 - A)+1)} - \frac{N_1 \cdot N_2}{(N_1^2 - N_1)+1} = 0.00000$$

R_2 = 0.46246

$$\frac{B\cdot((A^2 - A)+1)}{A} = 0.46246$$

$$R_2 - \frac{B\cdot((A^2 - A)+1)}{A} = 0.00000$$

3OBT4R3

Given.

Unit. $ab := 1$

$N_1 := 2.87952 \quad N_2 := 2.05997$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2}$

Descriptions.

$bN_1 := \sqrt{1 + N_1^2} \quad bg := \frac{N_1}{bN_1} \quad gh := \frac{bg}{bN_1}$

$bf := N_2 \cdot gh \quad DF := \sqrt{bf \cdot (1 - bf)} \quad R_1 := \frac{bf}{DF}$

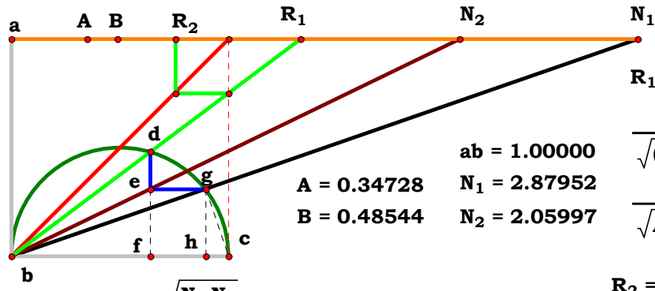
$R_2 := \frac{1}{R_1} \quad R_1 = 1.328699$

Definitions.

$$R_1 - \frac{(N_1 \cdot N_2)^{\frac{1}{2}}}{(N_1^2 - N_1 \cdot N_2 + 1)^{\frac{1}{2}}} = 0$$

$N_1 - \frac{1}{A} = 0 \quad N_2 - \frac{1}{B} = 0$

$R_1 - \frac{A}{\sqrt{A \cdot (B - A) + A^3 \cdot B}} = 0 \quad R_2 - \frac{\sqrt{A^3 \cdot B - A \cdot (A - B)}}{A} = 0$



$ab = 1.00000$
$A = 0.34728$
$B = 0.48544$
$N_1 = 2.87952$
$N_2 = 2.05997$

$R_1 = 1.32870$

$\frac{\sqrt{N_1 \cdot N_2}}{\sqrt{(N_1^2 - N_1 \cdot N_2) + 1}} = 1.32870$

$\frac{A}{\sqrt{A \cdot (B - A) + A^3 \cdot B}} = 1.32870$

$R_1 - \frac{\sqrt{N_1 \cdot N_2}}{\sqrt{(N_1^2 - N_1 \cdot N_2) + 1}} = 0.00000$

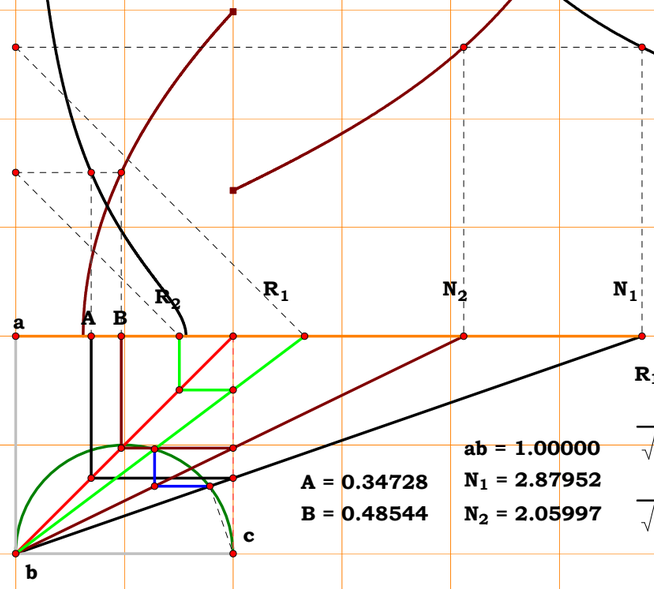
$R_1 - \frac{A}{\sqrt{A \cdot (B - A) + A^3 \cdot B}} = 0.00000$

$\frac{A}{\sqrt{A \cdot (B - A) + A^3 \cdot B}} - \frac{\sqrt{N_1 \cdot N_2}}{\sqrt{(N_1^2 - N_1 \cdot N_2) + 1}} = 0.00000$

$R_2 = 0.75261$

$\frac{\sqrt{A \cdot (B - A) + A^3 \cdot B}}{A} = 0.75261$

$R_2 - \frac{\sqrt{A \cdot (B - A) + A^3 \cdot B}}{A} = 0.00000$



$A = 0.34728$

$B = 0.48544$

$ab = 1.00000$

$N_1 = 2.87952$

$N_2 = 2.05997$

$R_1 = 1.32870$

$$\frac{\sqrt{N_1 \cdot N_2}}{\sqrt{(N_1^2 - N_1 \cdot N_2)+1}} = 1.32870$$

$$\frac{A}{\sqrt{A \cdot (B-A)+A^3 \cdot B}} = 1.32870$$

$$R_1 - \frac{\sqrt{N_1 \cdot N_2}}{\sqrt{(N_1^2 - N_1 \cdot N_2)+1}} = 0.00000$$

$$R_1 - \frac{A}{\sqrt{A \cdot (B-A)+A^3 \cdot B}} = 0.00000$$

$$\frac{A}{\sqrt{A \cdot (B-A)+A^3 \cdot B}} - \frac{\sqrt{N_1 \cdot N_2}}{\sqrt{(N_1^2 - N_1 \cdot N_2)+1}} = 0.00000$$

$R_2 = 0.75261$

$$\frac{\sqrt{A \cdot (B-A)+A^3 \cdot B}}{A} = 0.75261$$

$$R_2 - \frac{\sqrt{A \cdot (B-A)+A^3 \cdot B}}{A} = 0.00000$$

3OBT4R4

Given.

Unit. $ab := 1$

$N_1 := 2.31660 \quad N_2 := 1.58953$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2}$

Descriptions.

$bN_1 := \sqrt{1 + N_1^2} \quad be := \frac{N_1}{bN_1} \quad bf := \frac{N_1 \cdot be}{bN_1}$

$df := \frac{bf}{N_2} \quad bj := \frac{bf}{1 - df} \quad bk := \sqrt{1 + bj^2} \quad bg := \frac{bj}{bk}$

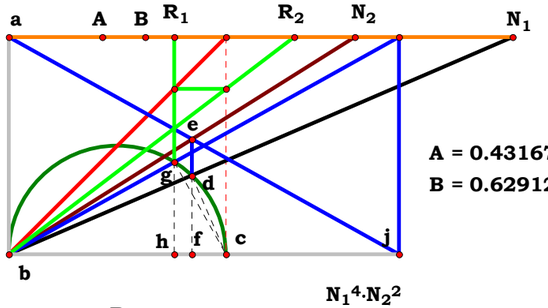
$R_1 := \frac{bj \cdot bg}{bk} \quad R_2 := \frac{1}{R_1} \quad R_1 = 0.763071$

Definitions.

$$R_1 - \frac{N_1^4 \cdot N_2^2}{N_1^4 \cdot \left[2 \cdot N_2 \cdot \left(N_2 - 1\right) + 1\right] + 2 \cdot N_1^2 \cdot N_2 \cdot \left(N_2 - 1\right) + N_2^2} = 0$$

$N_1 - \frac{1}{A} = 0 \quad N_2 - \frac{1}{B} = 0$

$$R_1 - \frac{1}{B^2 - 2 \cdot B \cdot \left(A^2 + 1\right) + A^4 + 2 \cdot \left(A^2 + 1\right)} = 0 \quad R_2 - \left[B^2 - 2 \cdot B \cdot \left(A^2 + 1\right) + A^4 + 2 \cdot \left(A^2 + 1\right)\right] = 0$$



$A = 0.43167$
$B = 0.62912$

$ab = 1.00000$
$N_1 = 2.31660$
$N_2 = 1.58953$

$R_1 = 0.76307$

$$\frac{N_1^4 \cdot N_2^2}{N_1^4 \cdot (2 \cdot N_2 \cdot (N_2 - 1) + 1) + 2 \cdot N_1^2 \cdot N_2 \cdot (N_2 - 1) + N_2^2} = 0.76307$$

$$\frac{1}{((B^2 - 2 \cdot B \cdot (A^2 + 1)) + A^4 + 2 \cdot (A^2 + 1))} = 0.76307$$

$$R_1 - \frac{N_1^4 \cdot N_2^2}{N_1^4 \cdot (2 \cdot N_2 \cdot (N_2 - 1) + 1) + 2 \cdot N_1^2 \cdot N_2 \cdot (N_2 - 1) + N_2^2} = 0.00000$$

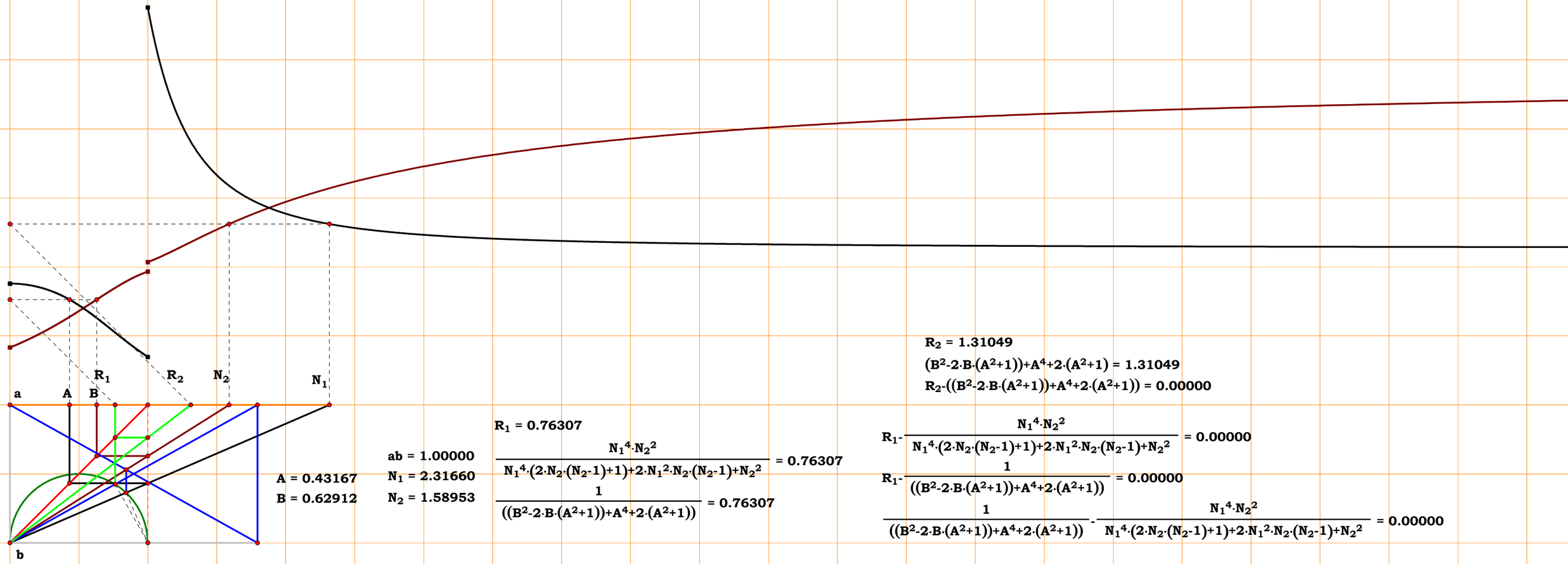
$$R_1 - \frac{1}{((B^2 - 2 \cdot B \cdot (A^2 + 1)) + A^4 + 2 \cdot (A^2 + 1))} = 0.00000$$

$$\frac{1}{((B^2 - 2 \cdot B \cdot (A^2 + 1)) + A^4 + 2 \cdot (A^2 + 1))} - \frac{N_1^4 \cdot N_2^2}{N_1^4 \cdot (2 \cdot N_2 \cdot (N_2 - 1) + 1) + 2 \cdot N_1^2 \cdot N_2 \cdot (N_2 - 1) + N_2^2} = 0.00000$$

$R_2 = 1.31049$

$(B^2 - 2 \cdot B \cdot (A^2 + 1)) + A^4 + 2 \cdot (A^2 + 1) = 1.31049$

$R_2 - ((B^2 - 2 \cdot B \cdot (A^2 + 1)) + A^4 + 2 \cdot (A^2 + 1)) = 0.00000$



A = 0.43167

B = 0.62912

ab = 1.00000

N_1 = 2.31660

N_2 = 1.58953

R_1 = 0.76307

$$\frac{N_1^4 \cdot N_2^2}{N_1^4 \cdot (2 \cdot N_2 \cdot (N_2-1)+1)+2 \cdot N_1^2 \cdot N_2 \cdot (N_2-1)+N_2^2} = 0.76307$$

$$\frac{1}{((B^2-2 \cdot B \cdot (A^2+1))+A^4+2 \cdot (A^2+1))} = 0.76307$$

R_2 = 1.31049

$(B^2-2 \cdot B \cdot (A^2+1))+A^4+2 \cdot (A^2+1)$ = 1.31049

$R_2-((B^2-2 \cdot B \cdot (A^2+1))+A^4+2 \cdot (A^2+1))$ = 0.00000

$$R_1-\frac{N_1^4 \cdot N_2^2}{N_1^4 \cdot (2 \cdot N_2 \cdot (N_2-1)+1)+2 \cdot N_1^2 \cdot N_2 \cdot (N_2-1)+N_2^2} = 0.00000$$

$$R_1-\frac{1}{((B^2-2 \cdot B \cdot (A^2+1))+A^4+2 \cdot (A^2+1))} = 0.00000$$

$$\frac{1}{((B^2-2 \cdot B \cdot (A^2+1))+A^4+2 \cdot (A^2+1))}-\frac{N_1^4 \cdot N_2^2}{N_1^4 \cdot (2 \cdot N_2 \cdot (N_2-1)+1)+2 \cdot N_1^2 \cdot N_2 \cdot (N_2-1)+N_2^2} = 0.00000$$

3OBT4R5

Given.

Unit. $ab := 1$

$N_1 := 3.48815 \quad N_2 := 1.42611$

$N_3 := 1.73258$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2} \quad C := \frac{1}{N_3}$

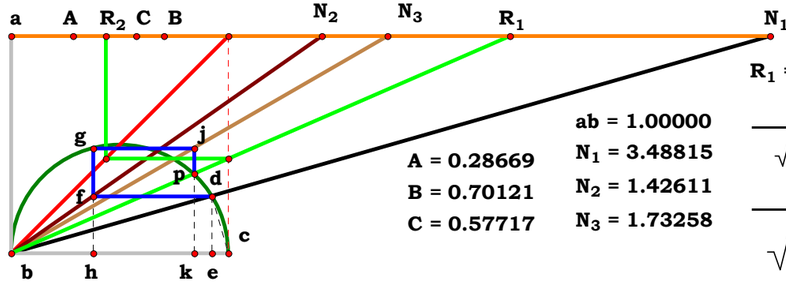
Descriptions.

$bN_1 := \sqrt{1 + N_1^2} \quad bd := \frac{N_1}{bN_1}$

$de := \frac{bd}{bN_1} \quad bh := N_2 \cdot de$

$gh := \sqrt{bh \cdot (1 - bh)} \quad bk := N_3 \cdot gh$

$pk := \sqrt{bk \cdot (1 - bk)} \quad R_1 := \frac{bk}{pk} \quad R_2 := \frac{1}{R_1} \quad R_1 = 2.29143$



$ab = 1.00000$
$A = 0.28669$ $N_1 = 3.48815$
$B = 0.70121$ $N_2 = 1.42611$
$C = 0.57717$ $N_3 = 1.73258$

Definitions.

$$R_1 - \frac{N_3 \cdot \sqrt{N_1 \cdot N_2 \cdot \left(N_1^2 - N_1 \cdot N_2 + 1\right)}}{\sqrt{N_1^2 \cdot N_2^2 \cdot N_3^2 + N_3 \cdot \left(N_1^2 + 1\right) \cdot \sqrt{N_1 \cdot N_2 \cdot \left(N_1^2 - N_1 \cdot N_2 + 1\right)} - N_1 \cdot N_2 \cdot N_3^2 \cdot \left(N_1^2 + 1\right)}} = 0$$

$$N_1 - \frac{1}{A} = 0 \qquad N_2 - \frac{1}{B} = 0 \qquad N_3 - \frac{1}{C} = 0$$

$$R_1 - \frac{A^{\frac{1}{4}} \cdot \sqrt{B \cdot A^2 - A + B}}{\sqrt{\sqrt{A} \cdot (A - B) + B \cdot \left(C \cdot A^2 + C\right) \cdot \sqrt{B \cdot A^2 - A + B} - A^{\frac{5}{2}} \cdot B}} = 0 \qquad R_2 - \frac{\sqrt{\sqrt{A} \cdot (A - B) - A^{\frac{5}{2}} \cdot B + B \cdot \left(C \cdot A^2 + C\right) \cdot \sqrt{B \cdot A^2 - A + B}}}{A^{\frac{1}{4}} \cdot \sqrt{B \cdot A^2 - A + B}} = 0$$

$R_1 = 2.29146$

$$\frac{N_3 \cdot \sqrt{N_1 \cdot N_2 \cdot \left((N_1^2 - N_1 \cdot N_2) + 1\right)}}{\sqrt{\left(N_1^2 \cdot N_2^2 \cdot N_3^2 + N_3 \cdot (N_1^2 + 1) \cdot \sqrt{N_1 \cdot N_2 \cdot \left((N_1^2 - N_1 \cdot N_2) + 1\right)}\right) - N_1 \cdot N_2 \cdot N_3^2 \cdot (N_1^2 + 1)}} = 2.29146$$

$$\frac{\left(\sqrt{\sqrt{A}} \cdot \sqrt{(A^2 \cdot B - A) + B}\right)}{\sqrt{\left(\sqrt{A} \cdot (A - B) + B \cdot C \cdot (A^2 + 1) \cdot \sqrt{(A^2 \cdot B - A) + B}\right) - A^{\frac{5}{2}} \cdot B}} = 2.29146$$

$$R_1 - \frac{N_3 \cdot \sqrt{N_1 \cdot N_2 \cdot \left((N_1^2 - N_1 \cdot N_2) + 1\right)}}{\sqrt{\left(N_1^2 \cdot N_2^2 \cdot N_3^2 + N_3 \cdot (N_1^2 + 1) \cdot \sqrt{N_1 \cdot N_2 \cdot \left((N_1^2 - N_1 \cdot N_2) + 1\right)}\right) - N_1 \cdot N_2 \cdot N_3^2 \cdot (N_1^2 + 1)}} = 0.00000$$

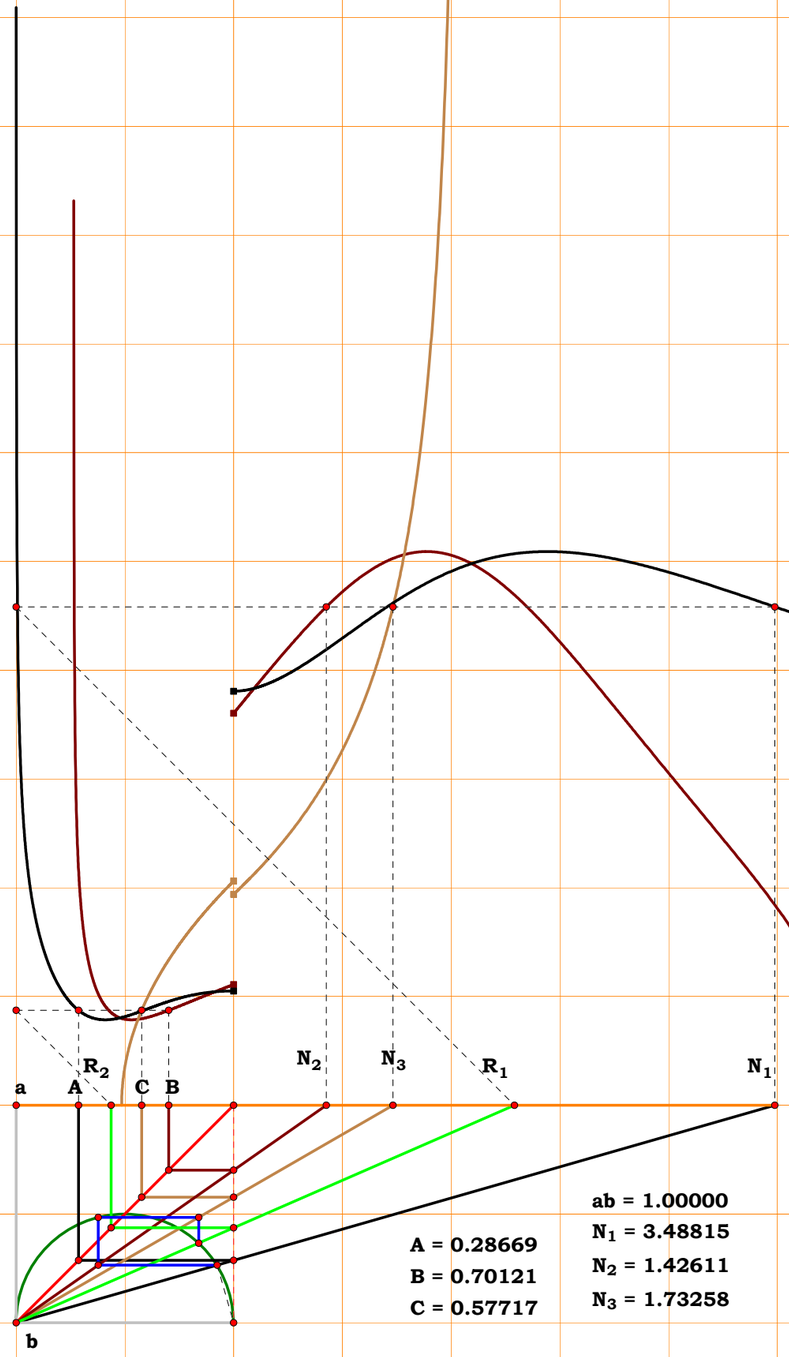
$$R_1 - \frac{\left(\sqrt{\sqrt{A}} \cdot \sqrt{(A^2 \cdot B - A) + B}\right)}{\sqrt{\left(\sqrt{A} \cdot (A - B) + B \cdot C \cdot (A^2 + 1) \cdot \sqrt{(A^2 \cdot B - A) + B}\right) - A^{\frac{5}{2}} \cdot B}} = 0.00000$$

$$\frac{\left(\sqrt{\sqrt{A}} \cdot \sqrt{(A^2 \cdot B - A) + B}\right)}{\sqrt{\left(\sqrt{A} \cdot (A - B) + B \cdot C \cdot (A^2 + 1) \cdot \sqrt{(A^2 \cdot B - A) + B}\right) - A^{\frac{5}{2}} \cdot B}} - \frac{N_3 \cdot \sqrt{N_1 \cdot N_2 \cdot \left((N_1^2 - N_1 \cdot N_2) + 1\right)}}{\sqrt{\left(N_1^2 \cdot N_2^2 \cdot N_3^2 + N_3 \cdot (N_1^2 + 1) \cdot \sqrt{N_1 \cdot N_2 \cdot \left((N_1^2 - N_1 \cdot N_2) + 1\right)}\right) - N_1 \cdot N_2 \cdot N_3^2 \cdot (N_1^2 + 1)}} = 0.00000$$

$R_2 = 0.43640$

$$\frac{\sqrt{\left(\sqrt{A} \cdot (A - B) + B \cdot C \cdot (A^2 + 1) \cdot \sqrt{(A^2 \cdot B - A) + B}\right) - A^{\frac{5}{2}} \cdot B}}{\left(\sqrt{\sqrt{A}} \cdot \sqrt{(A^2 \cdot B - A) + B}\right)} = 0.43640$$

$$R_2 - \frac{\sqrt{\left(\sqrt{A} \cdot (A - B) + B \cdot C \cdot (A^2 + 1) \cdot \sqrt{(A^2 \cdot B - A) + B}\right) - A^{\frac{5}{2}} \cdot B}}{\left(\sqrt{\sqrt{A}} \cdot \sqrt{(A^2 \cdot B - A) + B}\right)} = 0.00000$$



ab = 1.00000
N_1 = 3.48815
N_2 = 1.42611
N_3 = 1.73258

A = 0.28669
B = 0.70121
C = 0.57717

$$R_1 - \frac{N_3 \cdot \sqrt{N_1 \cdot N_2 \cdot ((N_1^2 - N_1 \cdot N_2) + 1)}}{\sqrt{(N_1^2 \cdot N_2^2 \cdot N_3^2 + N_3 \cdot (N_1^2 + 1) \cdot \sqrt{N_1 \cdot N_2 \cdot ((N_1^2 - N_1 \cdot N_2) + 1)}) - N_1 \cdot N_2 \cdot N_3^2 \cdot (N_1^2 + 1)}} = 0.00000$$

$$R_1 - \frac{(\sqrt{\sqrt{A}} \cdot \sqrt{(A^2 \cdot B - A) + B})}{\sqrt{(\sqrt{A} \cdot (A - B) + B \cdot C \cdot (A^2 + 1) \cdot \sqrt{(A^2 \cdot B - A) + B}) - A^{\frac{5}{2}} \cdot B}} = 0.00000$$

$$\frac{(\sqrt{\sqrt{A}} \cdot \sqrt{(A^2 \cdot B - A) + B})}{\sqrt{(\sqrt{A} \cdot (A - B) + B \cdot C \cdot (A^2 + 1) \cdot \sqrt{(A^2 \cdot B - A) + B}) - A^{\frac{5}{2}} \cdot B}} - \frac{N_3 \cdot \sqrt{N_1 \cdot N_2 \cdot ((N_1^2 - N_1 \cdot N_2) + 1)}}{\sqrt{(N_1^2 \cdot N_2^2 \cdot N_3^2 + N_3 \cdot (N_1^2 + 1) \cdot \sqrt{N_1 \cdot N_2 \cdot ((N_1^2 - N_1 \cdot N_2) + 1)}) - N_1 \cdot N_2 \cdot N_3^2 \cdot (N_1^2 + 1)}} = 0.00000$$

R_1 = 2.29146

$$\frac{N_3 \cdot \sqrt{N_1 \cdot N_2 \cdot ((N_1^2 - N_1 \cdot N_2) + 1)}}{\sqrt{(N_1^2 \cdot N_2^2 \cdot N_3^2 + N_3 \cdot (N_1^2 + 1) \cdot \sqrt{N_1 \cdot N_2 \cdot ((N_1^2 - N_1 \cdot N_2) + 1)}) - N_1 \cdot N_2 \cdot N_3^2 \cdot (N_1^2 + 1)}} = 2.29146$$

$$\frac{(\sqrt{\sqrt{A}} \cdot \sqrt{(A^2 \cdot B - A) + B})}{\sqrt{(\sqrt{A} \cdot (A - B) + B \cdot C \cdot (A^2 + 1) \cdot \sqrt{(A^2 \cdot B - A) + B}) - A^{\frac{5}{2}} \cdot B}} = 2.29146$$

R_2 = 0.43640

$$\frac{\sqrt{(\sqrt{A} \cdot (A - B) + B \cdot C \cdot (A^2 + 1) \cdot \sqrt{(A^2 \cdot B - A) + B}) - A^{\frac{5}{2}} \cdot B}}{(\sqrt{\sqrt{A}} \cdot \sqrt{(A^2 \cdot B - A) + B})} = 0.43640$$

$$R_2 - \frac{\sqrt{(\sqrt{A} \cdot (A - B) + B \cdot C \cdot (A^2 + 1) \cdot \sqrt{(A^2 \cdot B - A) + B}) - A^{\frac{5}{2}} \cdot B}}{(\sqrt{\sqrt{A}} \cdot \sqrt{(A^2 \cdot B - A) + B})} = 0.00000$$

3OBT4R6

Given.

Unit. $ab := 1$

$N_1 := 3.57079 \quad N_2 := 2.10897$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2}$

Descriptions.

$bN_1 := \sqrt{1 + N_1^2} \qquad bh := \frac{N_1}{bN_1}$

$hj := \frac{bh}{bN_1} \qquad be := N_2 \cdot hj$

$bg := \frac{be}{1 - hj} \qquad fg := \sqrt{bg \cdot (1 - bg)}$

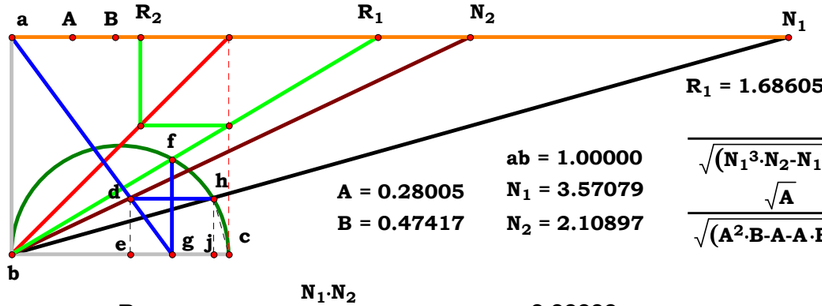
$R_1 := \frac{bg}{fg} \quad R_2 := \frac{1}{R_1} \quad R_1 = 1.686053$

Definitions.

$$R_1 - \frac{N_1 \cdot N_2}{\sqrt{N_1^3 \cdot N_2 - N_1^2 \cdot N_2^2 - N_1^2 \cdot N_2 + N_1 \cdot N_2}} = 0$$

$N_1 - \frac{1}{A} = 0 \qquad N_2 - \frac{1}{B} = 0$

$$R_1 - \frac{\sqrt{A}}{\sqrt{B \cdot A^2 - A - B \cdot A + B}} = 0 \qquad R_2 - \frac{\sqrt{B - A - A \cdot B + A^2 \cdot B}}{\sqrt{A}} = 0$$



$A = 0.28005 \quad B = 0.47417$

$ab = 1.00000 \quad N_1 = 3.57079 \quad N_2 = 2.10897$

$R_1 = 1.68605$

$$\frac{N_1 \cdot N_2}{\sqrt{N_1^3 \cdot N_2 - N_1^2 \cdot N_2^2 - N_1^2 \cdot N_2 + N_1 \cdot N_2}} = 1.68605$$

$$\frac{\sqrt{A}}{\sqrt{A^2 \cdot B - A - A \cdot B + B}} = 1.68605$$

$$R_1 - \frac{N_1 \cdot N_2}{\sqrt{N_1^3 \cdot N_2 - N_1^2 \cdot N_2^2 - N_1^2 \cdot N_2 + N_1 \cdot N_2}} = 0.00000$$

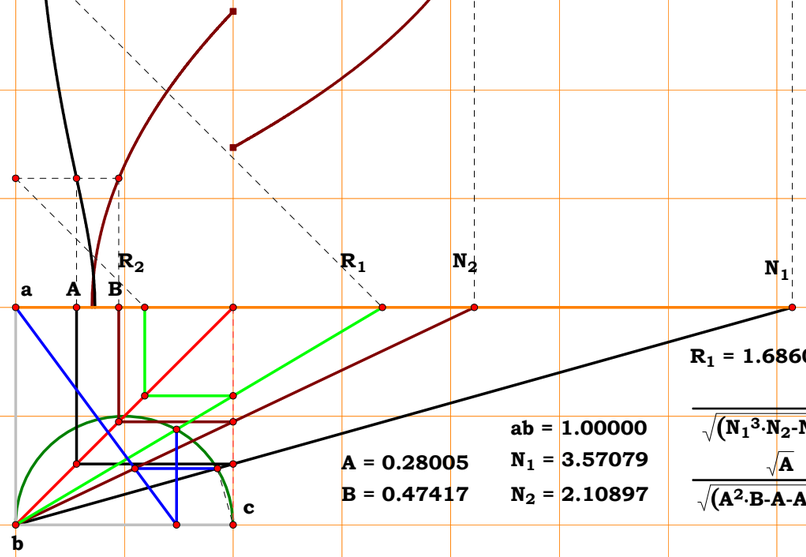
$$R_1 - \frac{\sqrt{A}}{\sqrt{A^2 \cdot B - A - A \cdot B + B}} = 0.00000$$

$$\frac{\sqrt{A}}{\sqrt{A^2 \cdot B - A - A \cdot B + B}} - \frac{N_1 \cdot N_2}{\sqrt{N_1^3 \cdot N_2 - N_1^2 \cdot N_2^2 - N_1^2 \cdot N_2 + N_1 \cdot N_2}} = 0.00000$$

$R_2 = 0.59310$

$$\frac{\sqrt{A^2 \cdot B - A - A \cdot B + B}}{\sqrt{A}} = 0.59310$$

$$R_2 - \frac{\sqrt{A^2 \cdot B - A - A \cdot B + B}}{\sqrt{A}} = 0.00000$$



$ab = 1.00000$

$A = 0.28005$ $N_1 = 3.57079$

$B = 0.47417$ $N_2 = 2.10897$

$R_1 = 1.68605$

$$\frac{N_1 \cdot N_2}{\sqrt{(N_1^3 \cdot N_2 - N_1^2 \cdot N_2^2 - N_1^2 \cdot N_2) + N_1 \cdot N_2}} = 1.68605$$

$$\frac{\sqrt{A}}{\sqrt{(A^2 \cdot B - A - A \cdot B) + B}} = 1.68605$$

$$R_1 - \frac{N_1 \cdot N_2}{\sqrt{(N_1^3 \cdot N_2 - N_1^2 \cdot N_2^2 - N_1^2 \cdot N_2) + N_1 \cdot N_2}} = 0.00000$$

$$R_1 - \frac{\sqrt{A}}{\sqrt{(A^2 \cdot B - A - A \cdot B) + B}} = 0.00000$$

$$\frac{\sqrt{A}}{\sqrt{(A^2 \cdot B - A - A \cdot B) + B}} - \frac{N_1 \cdot N_2}{\sqrt{(N_1^3 \cdot N_2 - N_1^2 \cdot N_2^2 - N_1^2 \cdot N_2) + N_1 \cdot N_2}} = 0.00000$$

$R_2 = 0.59310$

$$\frac{\sqrt{(A^2 \cdot B - A - A \cdot B) + B}}{\sqrt{A}} = 0.59310$$

$$R_2 - \frac{\sqrt{(A^2 \cdot B - A - A \cdot B) + B}}{\sqrt{A}} = 0.00000$$

3OBT4R7

Given.

Unit. $ab := 1$

$N_1 := 3.08626 \quad N_2 := 2.21532$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2}$

Descriptions.

$bN_1 := \sqrt{1 + N_1^2} \quad be := \frac{N_1}{bN_1}$

$bf := \frac{N_1 \cdot be}{bN_1} \quad df := \frac{bf}{N_2} \quad R_1 := \frac{bf}{1 - df}$

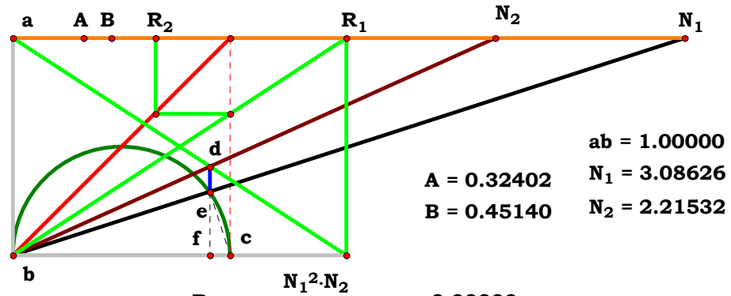
$R_2 := \frac{1}{R_1} \quad R_1 = 1.530023$

Definitions.

$R_1 - \frac{N_1^2 \cdot N_2}{N_1^2 \cdot N_2 - N_1^2 + N_2} = 0$

$N_1 - \frac{1}{A} = 0 \quad N_2 - \frac{1}{B} = 0$

$R_1 - \frac{1}{A^2 + 1 - B} = 0 \quad R_2 - \left(A^2 + 1 - B\right) = 0$



$A = 0.32402$
$B = 0.45140$

$ab = 1.00000$
$N_1 = 3.08626$
$N_2 = 2.21532$

$R_1 - \frac{N_1^2 \cdot N_2}{(N_1^2 \cdot N_2 - N_1^2) + N_2} = 0.00000$

$R_1 - \frac{1}{(A^2+1) - B} = 0.00000$

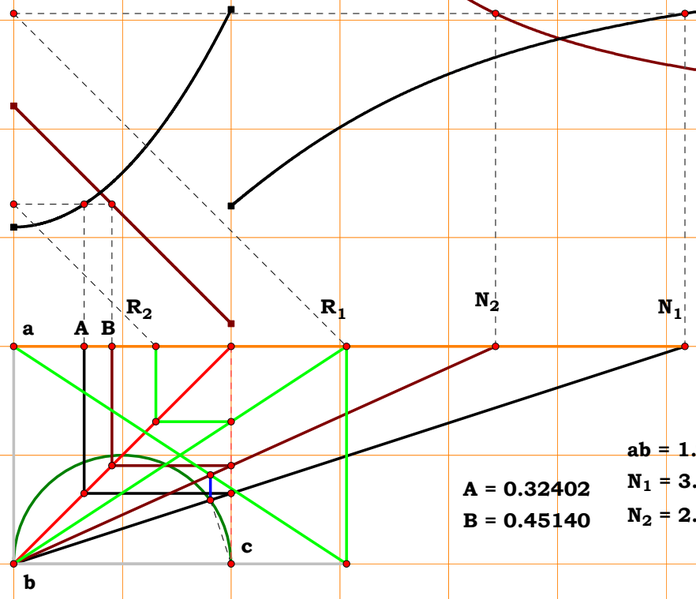
$\frac{1}{(A^2+1) - B} - \frac{N_1^2 \cdot N_2}{(N_1^2 \cdot N_2 - N_1^2) + N_2} = 0.00000$

$R_1 = 1.53002$
$R_2 = 0.65359$

$\frac{N_1^2 \cdot N_2}{(N_1^2 \cdot N_2 - N_1^2) + N_2} = 1.53002$

$\frac{1}{(A^2+1) - B} = 1.53002$

$(A^2+1) - B = 0.65359$
$R_2 - ((A^2+1) - B) = 0.00000$



$A = 0.32402$
$B = 0.45140$

$ab = 1.00000$
$N_1 = 3.08626$
$N_2 = 2.21532$

$R_1 = 1.53002$
$R_2 = 0.65359$

$$\frac{N_1^2 \cdot N_2}{(N_1^2 \cdot N_2 - N_1^2) + N_2} = 1.53002$$

$$\frac{1}{(A^2+1) - B} = 1.53002$$

$$R_1 - \frac{N_1^2 \cdot N_2}{(N_1^2 \cdot N_2 - N_1^2) + N_2} = 0.00000$$

$$R_1 - \frac{1}{(A^2+1) - B} = 0.00000$$

$$\frac{1}{(A^2+1) - B} - \frac{N_1^2 \cdot N_2}{(N_1^2 \cdot N_2 - N_1^2) + N_2} = 0.00000$$

$(A^2+1) - B = 0.65359$

$R_2 - ((A^2+1) - B) = 0.00000$

3OBT4R8

Given.

Unit. $ab := 1$

$N_1 := 1.27468 \quad N_2 := 2.23064$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2}$

Descriptions.

$bN_1 := \sqrt{1 + N_1^{\,2}} \quad bg := \frac{N_1}{bN_1}$

$gh := \frac{bg}{bN_1} \quad bh := \frac{N_1 \cdot bg}{bN_1}$

$bj := \frac{bh}{1 - gh} \quad bf := \frac{N_2 \cdot bj}{N_2 + bj}$

$ef := \sqrt{bf \cdot (1 - bf)} \quad R_1 := \frac{bf}{ef}$

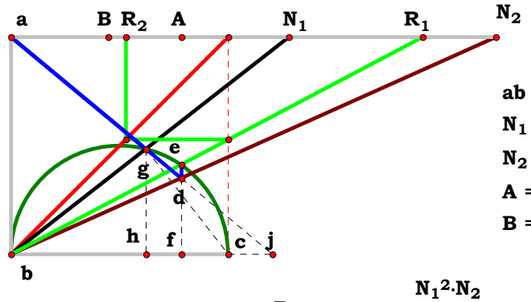
$R_2 := \frac{1}{R_1} \quad R_1 = 1.892365$

Definitions.

$$R_1 - \frac{N_1^{\,2} \cdot N_2}{\sqrt{N_1^{\,2} \cdot N_2 \cdot \left(N_1^{\,2} - N_1 \cdot N_2 + N_2\right)}} = 0$$

$N_1 - \frac{1}{A} = 0 \quad N_2 - \frac{1}{B} = 0$

$R_1 - \frac{1}{\sqrt{A^2 - A + B}} = 0 \quad R_2 - \sqrt{A^2 - A + B} = 0$



ab = 1.00000
N1 = 1.27468
N2 = 2.23064
A = 0.78451
B = 0.44830

R1 = 1.89237
R2 = 0.52844

$$\frac{N_1^{\,2} \cdot N_2}{\sqrt{N_1^{\,2} \cdot N_2 \cdot \left(\left(N_1^{\,2} - N_1 \cdot N_2\right) + N_2\right)}} = 1.89237$$

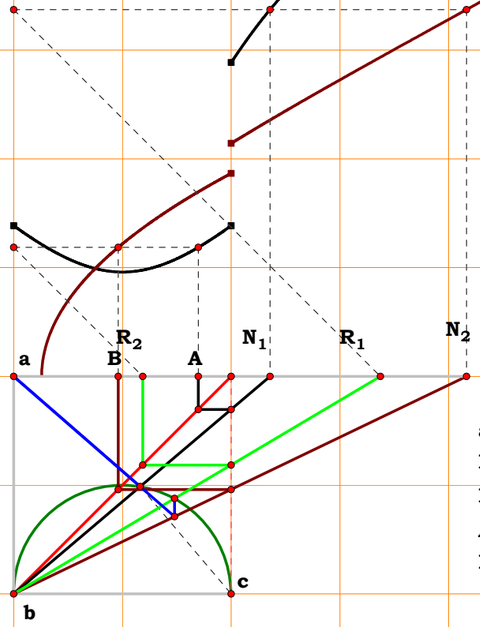
$$\frac{1}{\sqrt{(A^2 - A) + B}} = 1.89237$$

$$R_1 - \frac{N_1^{\,2} \cdot N_2}{\sqrt{N_1^{\,2} \cdot N_2 \cdot \left(\left(N_1^{\,2} - N_1 \cdot N_2\right) + N_2\right)}} = 0.00000$$

$$R_1 - \frac{1}{\sqrt{(A^2 - A) + B}} = 0.00000$$

$$\frac{1}{\sqrt{(A^2 - A) + B}} - \frac{N_1^{\,2} \cdot N_2}{\sqrt{N_1^{\,2} \cdot N_2 \cdot \left(\left(N_1^{\,2} - N_1 \cdot N_2\right) + N_2\right)}} = 0.00000$$

$$R_2 - \sqrt{(A^2 - A) + B} = 0.00000$$



ab = 1.00000
N_1 = 1.17873
N_2 = 2.08232
A = 0.84837
B = 0.48023

R_1 = 1.68647
R_2 = 0.59296

$$\frac{N_1^2 \cdot N_2}{\sqrt{N_1^2 \cdot N_2 \cdot ((N_1^2 - N_1 \cdot N_2) + N_2)}} = 1.68647$$

$$\frac{1}{\sqrt{(A^2 - A) + B}} = 1.68647$$

$$R_1 - \frac{N_1^2 \cdot N_2}{\sqrt{N_1^2 \cdot N_2 \cdot ((N_1^2 - N_1 \cdot N_2) + N_2)}} = 0.00000$$

$$R_1 - \frac{1}{\sqrt{(A^2 - A) + B}} = 0.00000$$

$$\frac{1}{\sqrt{(A^2 - A) + B}} - \frac{N_1^2 \cdot N_2}{\sqrt{N_1^2 \cdot N_2 \cdot ((N_1^2 - N_1 \cdot N_2) + N_2)}} = 0.00000$$

$$R_2 - \sqrt{(A^2 - A) + B} = 0.00000$$

3OBT5R0

Given.

Unit. $ab := 1$

$N_1 := 2.66899 \quad N_2 := 5.26979$

$N_3 := 2.16942$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2} \quad C := \frac{1}{N_3}$

Descriptions.

$bN_1 := \sqrt{1 + N_1^2} \quad bf := \frac{N_1}{bN_1}$

$bh := \frac{N_1 \cdot bf}{bN_1} \quad hj := N_3 - bh$

$gh := \frac{hj}{N_3} \quad R_1 := N_2 \cdot gh$

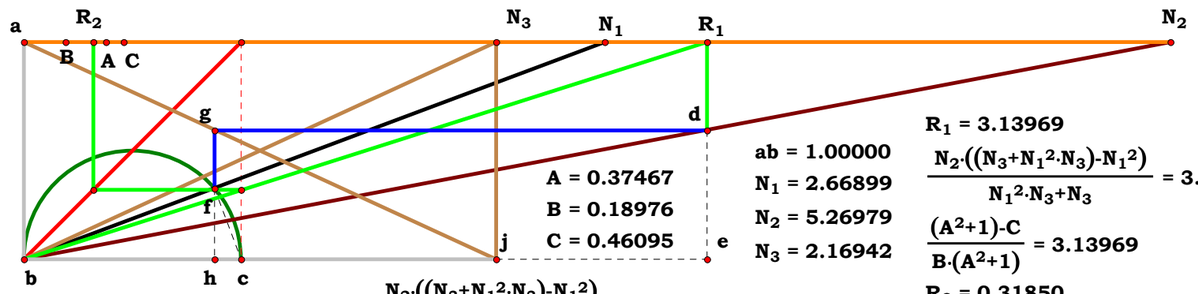
$R_2 := \frac{1}{R_1} \quad R_1 = 3.13969$

Definitions.

$R_1 - \frac{N_2 \cdot \left(N_3 + N_1^2 \cdot N_3 - N_1^2\right)}{N_1^2 \cdot N_3 + N_3} = 0$

$N_1 - \frac{1}{A} = 0 \quad N_2 - \frac{1}{B} = 0 \quad N_3 - \frac{1}{C} = 0$

$R_1 - \frac{\left(A^2 + 1 - C\right)}{B \cdot \left(A^2 + 1\right)} = 0 \quad R_2 - \frac{B \cdot \left(A^2 + 1\right)}{A^2 - C + 1} = 0$



A = 0.37467
B = 0.18976
C = 0.46095

ab = 1.00000
N_1 = 2.66899
N_2 = 5.26979
N_3 = 2.16942

$R_1 - \frac{N_2 \cdot \left(\left(N_3 + N_1^2 \cdot N_3\right) - N_1^2\right)}{N_1^2 \cdot N_3 + N_3} = 0.00000$

$R_1 - \frac{\left(A^2+1\right) - C}{B \cdot \left(A^2+1\right)} = 0.00000$

$\frac{\left(A^2+1\right) - C}{B \cdot \left(A^2+1\right)} - \frac{N_2 \cdot \left(\left(N_3 + N_1^2 \cdot N_3\right) - N_1^2\right)}{N_1^2 \cdot N_3 + N_3} = 0.00000$

$R_1 = 3.13969$

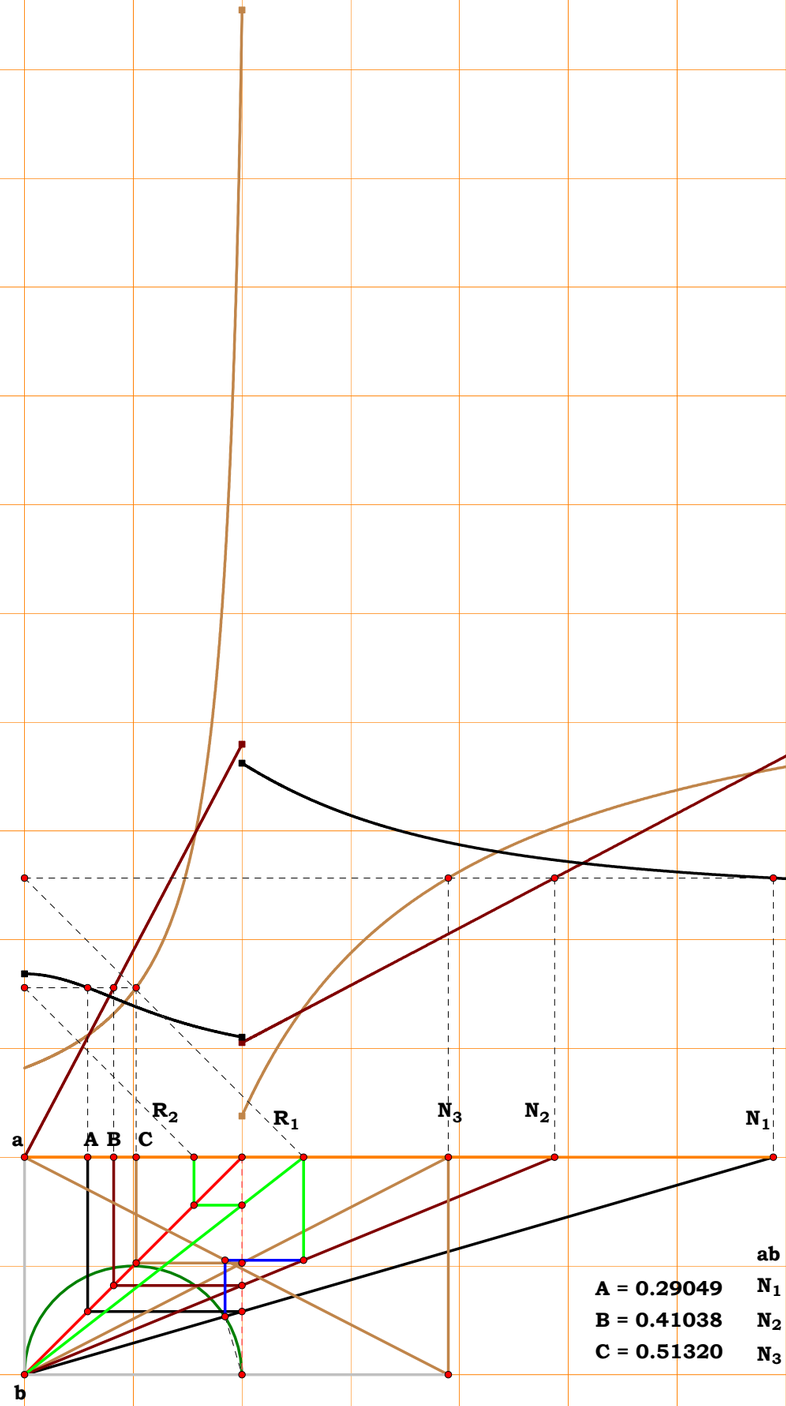
$\frac{N_2 \cdot \left(\left(N_3 + N_1^2 \cdot N_3\right) - N_1^2\right)}{N_1^2 \cdot N_3 + N_3} = 3.13969$

$\frac{\left(A^2+1\right) - C}{B \cdot \left(A^2+1\right)} = 3.13969$

$R_2 = 0.31850$

$\frac{B \cdot \left(A^2+1\right)}{\left(A^2+1\right) - C} = 0.31850$

$R_2 - \frac{B \cdot \left(A^2+1\right)}{\left(A^2+1\right) - C} = 0.00000$



$A = 0.29049$
$B = 0.41038$
$C = 0.51320$

$ab = 1.00000$
$N_1 = 3.44245$
$N_2 = 2.43678$
$N_3 = 1.94854$

$R_1 = 1.28353$

$$\frac{N_2\cdot((N_3+N_1^2\cdot N_3)-N_1^2)}{N_1^2\cdot N_3+N_3} = 1.28353$$

$$\frac{(A^2+1)-C}{B\cdot(A^2+1)} = 1.28353$$

$$R_1-\frac{N_2\cdot((N_3+N_1^2\cdot N_3)-N_1^2)}{N_1^2\cdot N_3+N_3} = 0.00000$$

$$R_1-\frac{(A^2+1)-C}{B\cdot(A^2+1)} = 0.00000$$

$$\frac{(A^2+1)-C}{B\cdot(A^2+1)}-\frac{N_2\cdot((N_3+N_1^2\cdot N_3)-N_1^2)}{N_1^2\cdot N_3+N_3} = 0.00000$$

$R_2 = 0.77910$

$$\frac{B\cdot(A^2+1)}{(A^2+1)-C} = 0.77910$$

$$R_2-\frac{B\cdot(A^2+1)}{(A^2+1)-C} = 0.00000$$

3OBT5R1

Given.

Unit. $ab := 1$

$N_1 := 1.30805 \quad N_2 := 1.71332$

$N_3 := 2.35401 \quad N_4 := 3.11119$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2} \quad C := \frac{1}{N_3} \quad D := \frac{1}{N_4}$

Descriptions.

$bN_1 := \sqrt{1 + N_1^2} \quad bd := \frac{N_1}{bN_1} \quad be := \frac{N_1 \cdot bd}{bN_1}$

$eh := N_3 - be \quad ef := \frac{eh}{N_3} \quad bg := N_2 \cdot ef$

$gj := \frac{(N_4 - bg)}{N_4} \quad R_1 := \frac{bg}{gj} \quad R_2 := \frac{1}{R_1}$

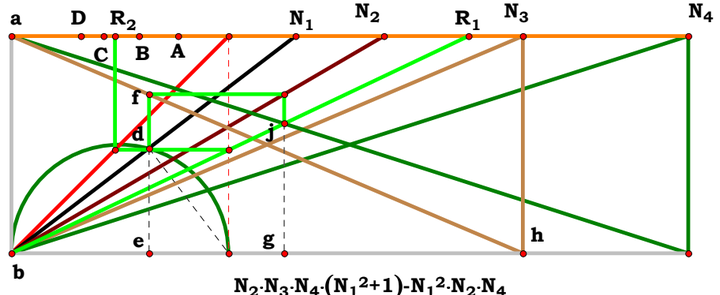
$R_1 = 2.100615$

Definitions.

$$R_1 - \frac{N_2 \cdot N_3 \cdot N_4 \cdot (N_1^2 + 1) - N_1^2 \cdot N_2 \cdot N_4}{(N_1^2 \cdot N_3 + N_3) \cdot N_4 - N_2 \cdot (N_3 + N_1^2 \cdot N_3 - N_1^2)} = 0$$

$N_1 - \frac{1}{A} = 0 \quad N_2 - \frac{1}{B} = 0 \quad N_3 - \frac{1}{C} = 0 \quad N_4 - \frac{1}{D} = 0$

$$R_1 - \frac{(A^2 + 1 - C)}{A^2 \cdot (B - D) + B - D + C \cdot D} = 0 \qquad R_2 - \frac{A^2 \cdot (B - D) + B - D + C \cdot D}{A^2 - C + 1} = 0$$



A = 0.76450
B = 0.58366
C = 0.42481
D = 0.32142

$N_1 = 1.30805$
$N_2 = 1.71332$
$N_3 = 2.35401$
$N_4 = 3.11119$

$R_1 = 2.10060$

$$\frac{N_2 \cdot N_3 \cdot N_4 \cdot (N_1^2 + 1) - N_1^2 \cdot N_2 \cdot N_4}{N_4 \cdot (N_1^2 \cdot N_3 + N_3) - N_2 \cdot ((N_3 + N_1^2 \cdot N_3) - N_1^2)} = 2.10060$$

$$\frac{((A^2 + 1) - C)}{(((A^2 \cdot (B - D) + B) - D) + C \cdot D)} = 2.10060$$

$$R_1 - \frac{N_2 \cdot N_3 \cdot N_4 \cdot (N_1^2 + 1) - N_1^2 \cdot N_2 \cdot N_4}{N_4 \cdot (N_1^2 \cdot N_3 + N_3) - N_2 \cdot ((N_3 + N_1^2 \cdot N_3) - N_1^2)} = 0.00000$$

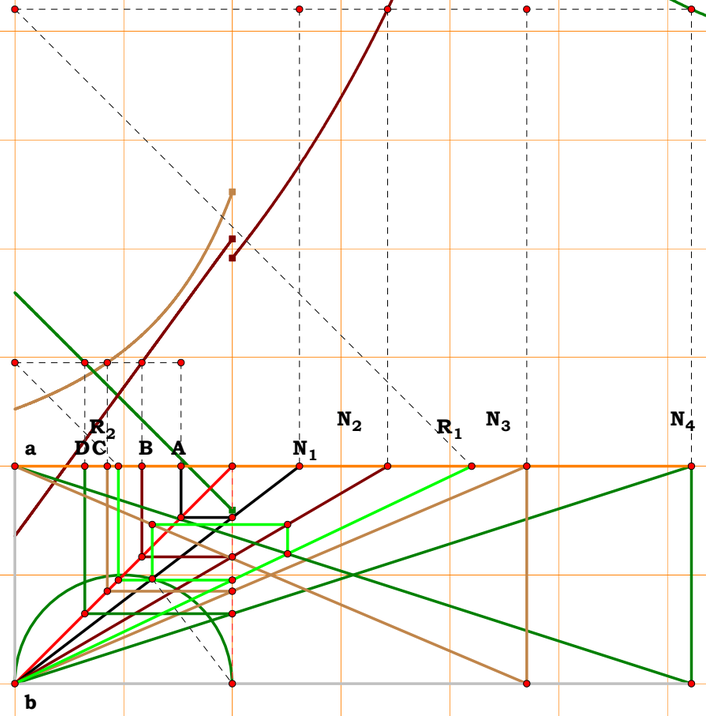
$$R_1 - \frac{((A^2 + 1) - C)}{(((A^2 \cdot (B - D) + B) - D) + C \cdot D)} = 0.00000$$

$$\frac{((A^2 + 1) - C)}{(((A^2 \cdot (B - D) + B) - D) + C \cdot D)} - \frac{N_2 \cdot N_3 \cdot N_4 \cdot (N_1^2 + 1) - N_1^2 \cdot N_2 \cdot N_4}{N_4 \cdot (N_1^2 \cdot N_3 + N_3) - N_2 \cdot ((N_3 + N_1^2 \cdot N_3) - N_1^2)} = 0.00000$$

$R_2 = 0.47605$

$$\frac{(((A^2 \cdot (B - D) + B) - D) + C \cdot D)}{((A^2 + 1) - C)} = 0.47605$$

$$R_2 - \frac{(((A^2 \cdot (B - D) + B) - D) + C \cdot D)}{((A^2 + 1) - C)} = 0.00000$$



A = 0.76450
B = 0.58366
C = 0.42481
D = 0.32142

$N_1 = 1.30805$
$N_2 = 1.71332$
$N_3 = 2.35401$
$N_4 = 3.11119$

$R_2 = 0.47605$

$$\frac{(((A^2\cdot(B-D)+B)-D)+C\cdot D)}{((A^2+1)-C)} = 0.47605$$

$$R_2-\frac{(((A^2\cdot(B-D)+B)-D)+C\cdot D)}{((A^2+1)-C)} = 0.00000$$

$R_1 = 2.10060$

$$\frac{N_2\cdot N_3\cdot N_4\cdot(N_1{}^2+1)-N_1{}^2\cdot N_2\cdot N_4}{N_4\cdot(N_1{}^2\cdot N_3+N_3)-N_2\cdot((N_3+N_1{}^2\cdot N_3)-N_1{}^2)} = 2.10060$$

$$\frac{((A^2+1)-C)}{(((A^2\cdot(B-D)+B)-D)+C\cdot D)} = 2.10060$$

$$R_1-\frac{N_2\cdot N_3\cdot N_4\cdot(N_1{}^2+1)-N_1{}^2\cdot N_2\cdot N_4}{N_4\cdot(N_1{}^2\cdot N_3+N_3)-N_2\cdot((N_3+N_1{}^2\cdot N_3)-N_1{}^2)} = 0.00000$$

$$R_1-\frac{((A^2+1)-C)}{(((A^2\cdot(B-D)+B)-D)+C\cdot D)} = 0.00000$$

$$\frac{((A^2+1)-C)}{(((A^2\cdot(B-D)+B)-D)+C\cdot D)}-\frac{N_2\cdot N_3\cdot N_4\cdot(N_1{}^2+1)-N_1{}^2\cdot N_2\cdot N_4}{N_4\cdot(N_1{}^2\cdot N_3+N_3)-N_2\cdot((N_3+N_1{}^2\cdot N_3)-N_1{}^2)} = 0.00000$$

3OBT5R2

Given.

Unit. $ab := 1 \quad N_1 := 2.63149$

$N_2 := 1.27088 \quad N_3 := 2.04718$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2} \quad C := \frac{1}{N_3}$

Descriptions.

$bN_1 := \sqrt{1 + N_1^2} \quad bg := \frac{N_1}{bN_1} \quad bj := \frac{N_1 \cdot bg}{bN_1}$

$jk := N_3 - bj \quad hj := \frac{jk}{N_3} \quad bf := N_2 \cdot hj$

$df := \sqrt{bf \cdot (1 - bf)} \quad R_1 := \frac{bf}{df} \quad R_2 := \frac{1}{R_1}$

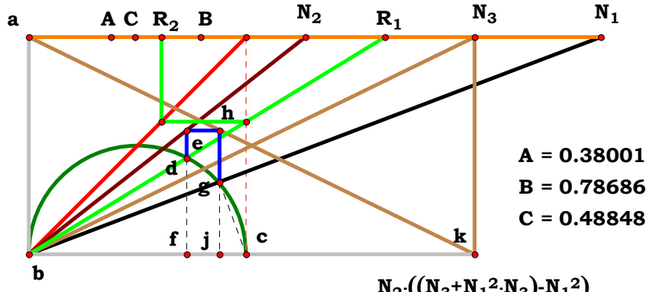
$R_1 = 1.637733$

Definitions.

$$R_1 - \frac{N_2 \cdot \left(N_3 + N_1^2 \cdot N_3 - N_1^2\right)}{\sqrt{N_2 \cdot \left(N_3 + N_1^2 \cdot N_3 - N_1^2\right) \cdot \left(N_3 + N_1^2 \cdot N_2 + N_1^2 \cdot N_3 - N_2 \cdot N_3 - N_1^2 \cdot N_2 \cdot N_3\right)}} = 0$$

$N_1 - \frac{1}{A} = 0 \quad N_2 - \frac{1}{B} = 0 \quad N_3 - \frac{1}{C} = 0$

$$R_1 - \frac{\left(A^2 + 1 - C\right)}{\sqrt{\left(A^2 + 1 - C\right) \cdot \left(A^2 \cdot B - 1 - A^2 + B + C\right)}} = 0 \qquad R_2 - \frac{\sqrt{\left(A^2 + 1 - C\right) \cdot \left(A^2 \cdot B - 1 - A^2 + B + C\right)}}{\left(A^2 + 1 - C\right)} = 0$$



$A = 0.38001$
$B = 0.78686$
$C = 0.48848$

$ab = 1.00000$
$N_1 = 2.63149$
$N_2 = 1.27088$
$N_3 = 2.04718$

$R_1 = 1.63773$

$$\frac{N_2 \cdot ((N_3 + N_1^2 \cdot N_3) - N_1^2)}{\sqrt{N_2 \cdot ((N_3 + N_1^2 \cdot N_3) - N_1^2) \cdot ((N_3 + N_1^2 \cdot N_2 + N_1^2 \cdot N_3) - N_2 \cdot N_3 - N_1^2 \cdot N_2 \cdot N_3)}} = 1.63773$$

$$\frac{((A^2+1)-C)}{\sqrt{((A^2+1)-C) \cdot ((A^2 \cdot B-1-A^2)+B+C)}} = 1.63773$$

$$R_1 - \frac{N_2 \cdot ((N_3 + N_1^2 \cdot N_3) - N_1^2)}{\sqrt{N_2 \cdot ((N_3 + N_1^2 \cdot N_3) - N_1^2) \cdot ((N_3 + N_1^2 \cdot N_2 + N_1^2 \cdot N_3) - N_2 \cdot N_3 - N_1^2 \cdot N_2 \cdot N_3)}} = 0.00000$$

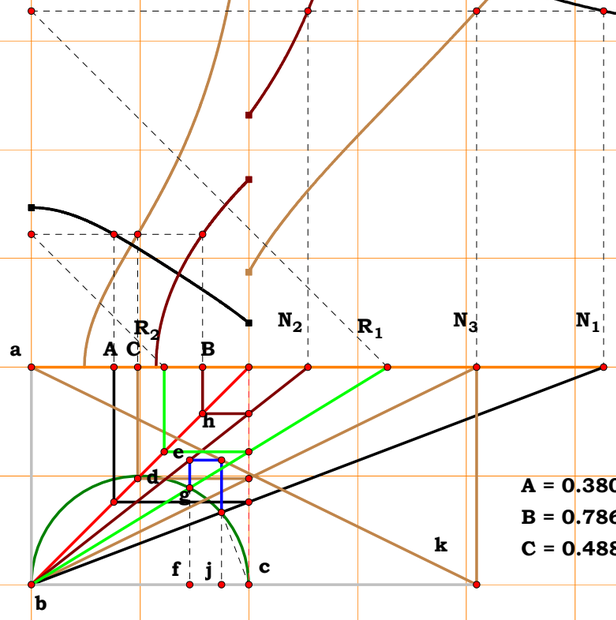
$$R_1 - \frac{((A^2+1)-C)}{\sqrt{((A^2+1)-C) \cdot ((A^2 \cdot B-1-A^2)+B+C)}} = 0.00000$$

$$\frac{((A^2+1)-C)}{\sqrt{((A^2+1)-C) \cdot ((A^2 \cdot B-1-A^2)+B+C)}} - \frac{N_2 \cdot ((N_3 + N_1^2 \cdot N_3) - N_1^2)}{\sqrt{N_2 \cdot ((N_3 + N_1^2 \cdot N_3) - N_1^2) \cdot ((N_3 + N_1^2 \cdot N_2 + N_1^2 \cdot N_3) - N_2 \cdot N_3 - N_1^2 \cdot N_2 \cdot N_3)}} = 0.00000$$

$R_2 = 0.61060$

$$\frac{\sqrt{((A^2+1)-C) \cdot ((A^2 \cdot B-1-A^2)+B+C)}}{((A^2+1)-C)} = 0.61060$$

$$R_2 - \frac{\sqrt{((A^2+1)-C) \cdot ((A^2 \cdot B-1-A^2)+B+C)}}{((A^2+1)-C)} = 0.00000$$



A = 0.38001
B = 0.78686
C = 0.48848

$$R_1 - \frac{N_2\cdot((N_3+N_1^2\cdot N_3)-N_1^2)}{\sqrt{N_2\cdot((N_3+N_1^2\cdot N_3)-N_1^2)\cdot((N_3+N_1^2\cdot N_2+N_1^2\cdot N_3)-N_2\cdot N_3-N_1^2\cdot N_2\cdot N_3)}} = 0.00000$$

$$R_1 - \frac{((A^2+1)-C)}{\sqrt{((A^2+1)-C)\cdot((A^2\cdot B-1-A^2)+B+C)}} = 0.00000$$

$$\frac{((A^2+1)-C)}{\sqrt{((A^2+1)-C)\cdot((A^2\cdot B-1-A^2)+B+C)}} - \frac{N_2\cdot((N_3+N_1^2\cdot N_3)-N_1^2)}{\sqrt{N_2\cdot((N_3+N_1^2\cdot N_3)-N_1^2)\cdot((N_3+N_1^2\cdot N_2+N_1^2\cdot N_3)-N_2\cdot N_3-N_1^2\cdot N_2\cdot N_3)}} = 0.00000$$

ab = 1.00000
N_1 = 2.63149
N_2 = 1.27088
N_3 = 2.04718

R_1 = 1.63773

$$\frac{N_2\cdot((N_3+N_1^2\cdot N_3)-N_1^2)}{\sqrt{N_2\cdot((N_3+N_1^2\cdot N_3)-N_1^2)\cdot((N_3+N_1^2\cdot N_2+N_1^2\cdot N_3)-N_2\cdot N_3-N_1^2\cdot N_2\cdot N_3)}} = 1.63773$$

$$\frac{((A^2+1)-C)}{\sqrt{((A^2+1)-C)\cdot((A^2\cdot B-1-A^2)+B+C)}} = 1.63773$$

R_2 = 0.61060

$$\frac{\sqrt{((A^2+1)-C)\cdot((A^2\cdot B-1-A^2)+B+C)}}{((A^2+1)-C)} = 0.61060$$

$$R_2 - \frac{\sqrt{((A^2+1)-C)\cdot((A^2\cdot B-1-A^2)+B+C)}}{((A^2+1)-C)} = 0.00000$$

3OBT5R3

Given.

Unit. $ab := 1$ $N_1 := 2.00787$

$N_2 := 2.66245$ $N_3 := 3.60416$

$A := \frac{1}{N_1}$ $B := \frac{1}{N_2}$ $C := \frac{1}{N_3}$

Descriptions.

$bN_1 := \sqrt{1 + N_1^2}$ $bh := \frac{N_1}{bN_1}$

$hj := \frac{bh}{bN_1}$ $bg := N_2 \cdot hj$

$eg := \frac{(N_3 - bg)}{N_3}$ $R_1 := \frac{bg}{eg}$

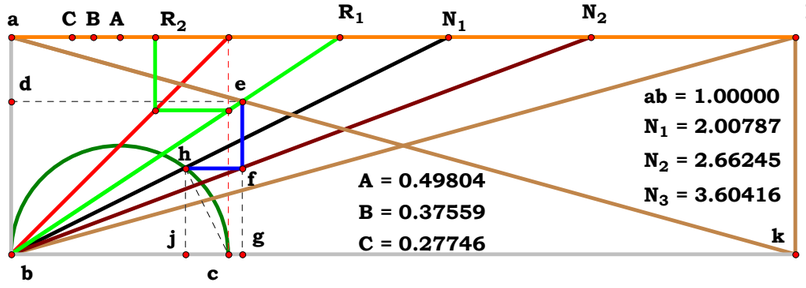
$R_2 := \frac{1}{R_1}$ $R_1 = 1.506597$

Definitions.

$$R_1 - \frac{N_1 \cdot N_2 \cdot N_3}{N_1^2 \cdot N_3 - N_1 \cdot N_2 + N_3} = 0$$

$N_1 - \frac{1}{A} = 0$ $N_2 - \frac{1}{B} = 0$ $N_3 - \frac{1}{C} = 0$

$$R_1 - \frac{A}{A^2 \cdot B - A \cdot C + B} = 0 \qquad R_2 - \frac{B \cdot A^2 - C \cdot A + B}{A} = 0$$



$R_1 = 1.50660$

$$\frac{N_1 \cdot N_2 \cdot N_3}{(N_1^2 \cdot N_3 - N_1 \cdot N_2) + N_3} = 1.50660$$

$$\frac{A}{(A^2 \cdot B - A \cdot C) + B} = 1.50660$$

$$R_1 - \frac{N_1 \cdot N_2 \cdot N_3}{(N_1^2 \cdot N_3 - N_1 \cdot N_2) + N_3} = 0.00000$$

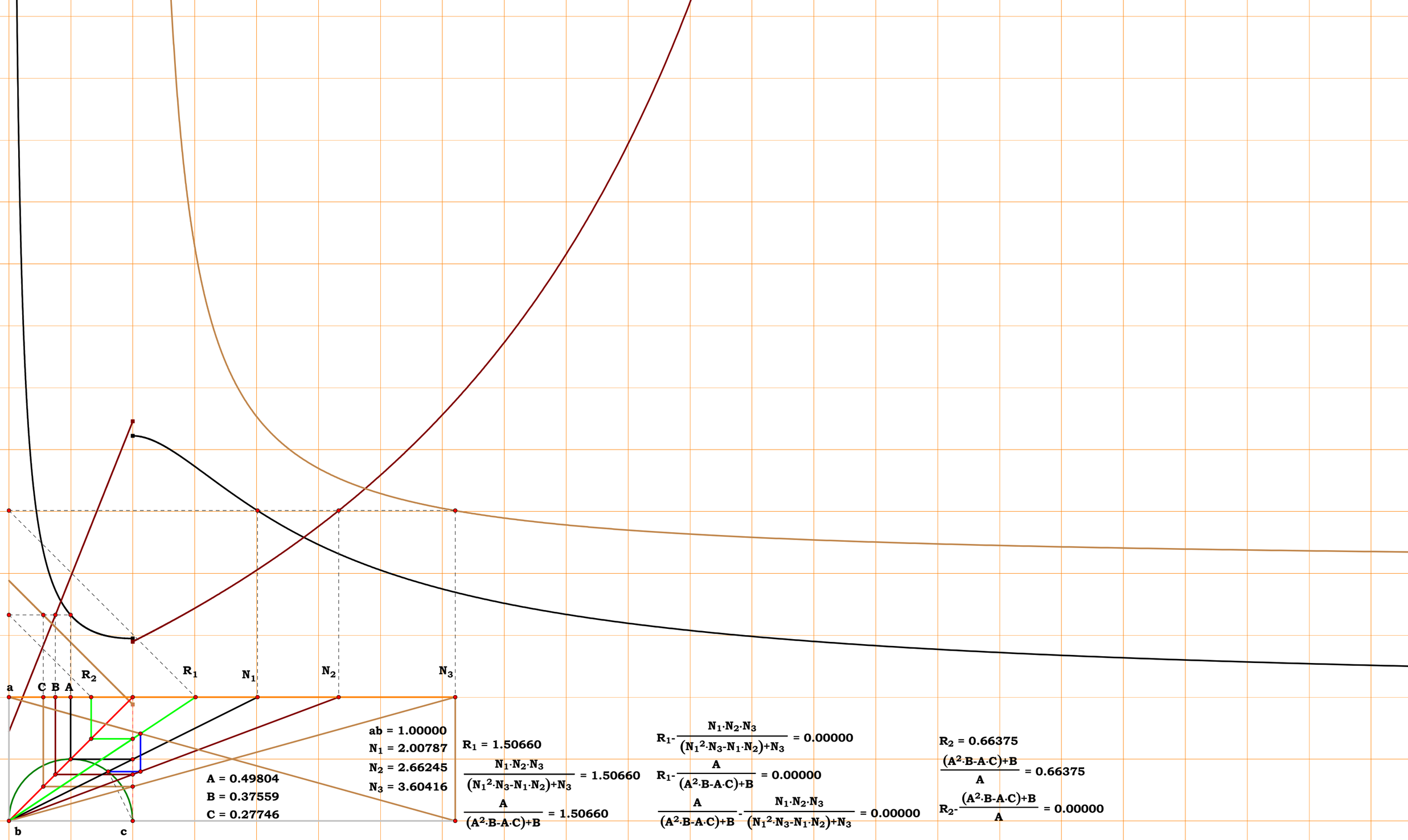
$$R_1 - \frac{A}{(A^2 \cdot B - A \cdot C) + B} = 0.00000$$

$$\frac{A}{(A^2 \cdot B - A \cdot C) + B} - \frac{N_1 \cdot N_2 \cdot N_3}{(N_1^2 \cdot N_3 - N_1 \cdot N_2) + N_3} = 0.00000$$

$R_2 = 0.66375$

$$\frac{(A^2 \cdot B - A \cdot C) + B}{A} = 0.66375$$

$$R_2 - \frac{(A^2 \cdot B - A \cdot C) + B}{A} = 0.00000$$



A = 0.49804
B = 0.37559
C = 0.27746

ab = 1.00000
N_1 = 2.00787
N_2 = 2.66245
N_3 = 3.60416

$R_1 = 1.50660$

$$\frac{N_1 \cdot N_2 \cdot N_3}{(N_1^2 \cdot N_3 - N_1 \cdot N_2) + N_3} = 1.50660$$

$$\frac{A}{(A^2 \cdot B - A \cdot C) + B} = 1.50660$$

$$R_1 - \frac{N_1 \cdot N_2 \cdot N_3}{(N_1^2 \cdot N_3 - N_1 \cdot N_2) + N_3} = 0.00000$$

$$R_1 - \frac{A}{(A^2 \cdot B - A \cdot C) + B} = 0.00000$$

$$\frac{A}{(A^2 \cdot B - A \cdot C) + B} - \frac{N_1 \cdot N_2 \cdot N_3}{(N_1^2 \cdot N_3 - N_1 \cdot N_2) + N_3} = 0.00000$$

$R_2 = 0.66375$

$$\frac{(A^2 \cdot B - A \cdot C) + B}{A} = 0.66375$$

$$R_2 - \frac{(A^2 \cdot B - A \cdot C) + B}{A} = 0.00000$$

3OBT5R4

Given.

Unit. $ab := 1$ $N_1 := 2.93496$

$N_2 := 1.69929$ $N_3 := 1.90146$

$A := \frac{1}{N_1}$ $B := \frac{1}{N_2}$ $C := \frac{1}{N_3}$

Descriptions.

$bh := \frac{N_1 \cdot N_3}{N_1 + N_3}$ $gh := \frac{bh}{N_1}$ $bf := N_2 \cdot gh$

$df := \sqrt{bf \cdot (1 - bf)}$ $R_1 := \frac{bf}{df}$

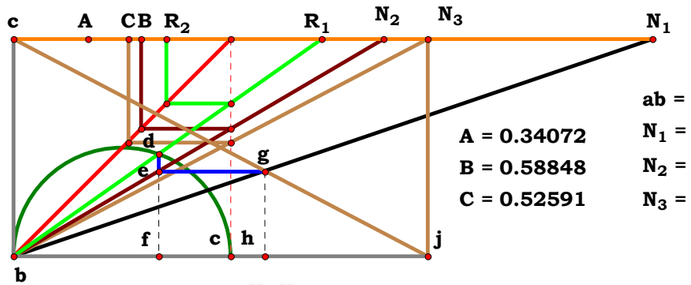
$R_2 := \frac{1}{R_1}$ $R_1 = 1.418734$

Definitions.

$$R_1 - \frac{N_2 \cdot N_3}{\sqrt{N_2 \cdot N_3 \cdot (N_1 + N_3 - N_2 \cdot N_3)}} = 0$$

$N_1 - \frac{1}{A} = 0$ $N_2 - \frac{1}{B} = 0$ $N_3 - \frac{1}{C} = 0$

$R_1 - \frac{\sqrt{A}}{\sqrt{(A \cdot B + B \cdot C - A)}} = 0$ $R_2 - \frac{\sqrt{A \cdot B - A + B \cdot C}}{\sqrt{A}} = 0$



A = 0.34072
B = 0.58848
C = 0.52591

ab = 1.00000
N_1 = 2.93496
N_2 = 1.69929
N_3 = 1.90146

$R_1 = 1.41874$

$\frac{N_2 \cdot N_3}{\sqrt{N_2 \cdot N_3 \cdot ((N_1 + N_3) - N_2 \cdot N_3)}} = 1.41874$

$\frac{\sqrt{A}}{\sqrt{(A \cdot B + B \cdot C) - A}} = 1.41874$

$R_1 - \frac{N_2 \cdot N_3}{\sqrt{N_2 \cdot N_3 \cdot ((N_1 + N_3) - N_2 \cdot N_3)}} = 0.00000$

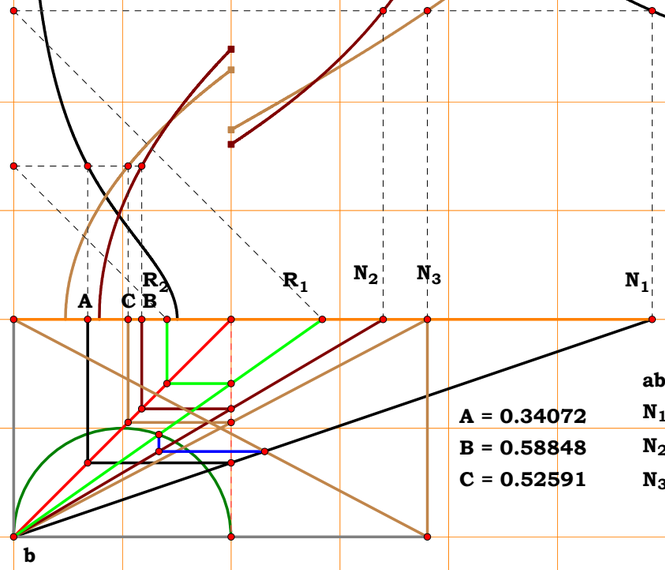
$R_1 - \frac{\sqrt{A}}{\sqrt{(A \cdot B + B \cdot C) - A}} = 0.00000$

$\frac{\sqrt{A}}{\sqrt{(A \cdot B + B \cdot C) - A}} - \frac{N_2 \cdot N_3}{\sqrt{N_2 \cdot N_3 \cdot ((N_1 + N_3) - N_2 \cdot N_3)}} = 0.00000$

$R_2 = 0.70485$

$\frac{\sqrt{(A \cdot B + B \cdot C) - A}}{\sqrt{A}} = 0.70485$

$R_2 - \frac{\sqrt{(A \cdot B + B \cdot C) - A}}{\sqrt{A}} = 0.00000$



A = 0.34072
B = 0.58848
C = 0.52591

ab = 1.00000
N_1 = 2.93496
N_2 = 1.69929
N_3 = 1.90146

$R_1 = 1.41874$

$$\frac{N_2 \cdot N_3}{\sqrt{N_2 \cdot N_3 \cdot ((N_1+N_3)-N_2 \cdot N_3)}} = 1.41874$$

$$\frac{\sqrt{A}}{\sqrt{(A \cdot B+B \cdot C)-A}} = 1.41874$$

$$R_1 - \frac{N_2 \cdot N_3}{\sqrt{N_2 \cdot N_3 \cdot ((N_1+N_3)-N_2 \cdot N_3)}} = 0.00000$$

$$R_1 - \frac{\sqrt{A}}{\sqrt{(A \cdot B+B \cdot C)-A}} = 0.00000$$

$$\frac{\sqrt{A}}{\sqrt{(A \cdot B+B \cdot C)-A}} - \frac{N_2 \cdot N_3}{\sqrt{N_2 \cdot N_3 \cdot ((N_1+N_3)-N_2 \cdot N_3)}} = 0.00000$$

$R_2 = 0.70485$

$$\frac{\sqrt{(A \cdot B+B \cdot C)-A}}{\sqrt{A}} = 0.70485$$

$$R_2 - \frac{\sqrt{(A \cdot B+B \cdot C)-A}}{\sqrt{A}} = 0.00000$$

3OBT5R5

Given.

Unit. $ab := 1$

$N_1 := 2.91919 \quad N_2 := .93939$

$N_3 := .73737$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2} \quad C := \frac{1}{N_3}$

Descriptions.

$bN_1 := \sqrt{1 + N_1^2} \quad bh := \frac{N_1}{bN_1} \quad bj := \frac{N_1 \cdot bh}{bN_1}$

$hj := \frac{bj}{N_1} \quad bk := \frac{bj}{1 - hj} \quad bf := \frac{N_2 \cdot bk}{N_2 + bk}$

$fg := N_3 - bf \quad ef := \frac{fg}{N_3} \quad R_1 := \frac{bf}{ef}$

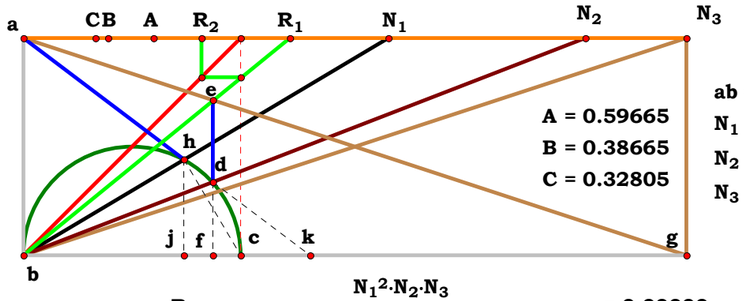
$R_2 := \frac{1}{R_1} \quad R_1 = 2.069809$

Definitions.

$$R_1 - \frac{N_1^2 \cdot N_2 \cdot N_3}{N_2 \cdot N_3 + N_1 \cdot N_2 \cdot N_3 \cdot (N_1 - 1) - N_1^2 \cdot (N_2 - N_3)} = 0$$

$N_1 - \frac{1}{A} = 0 \quad N_2 - \frac{1}{B} = 0 \quad N_3 - \frac{1}{C} = 0$

$R_1 - \frac{1}{A^2 + 1 - A + B - C} = 0 \quad R_2 - (A^2 + 1 - A + B - C) = 0$



$ab = 1.00000$

$N_1 = 1.67604$

$N_2 = 2.58629$

$N_3 = 3.04828$

$R_1 = 1.22258$

$$\frac{N_1^2 \cdot N_2 \cdot N_3}{(N_2 \cdot N_3 + N_1 \cdot N_2 \cdot N_3 \cdot (N_1 - 1)) - N_1^2 \cdot (N_2 - N_3)} = 1.22258$$

$$\frac{1}{((((A^2+1)-A)+B)-C)} = 1.22258$$

$$R_1 - \frac{N_1^2 \cdot N_2 \cdot N_3}{(N_2 \cdot N_3 + N_1 \cdot N_2 \cdot N_3 \cdot (N_1 - 1)) - N_1^2 \cdot (N_2 - N_3)} = 0.00000$$

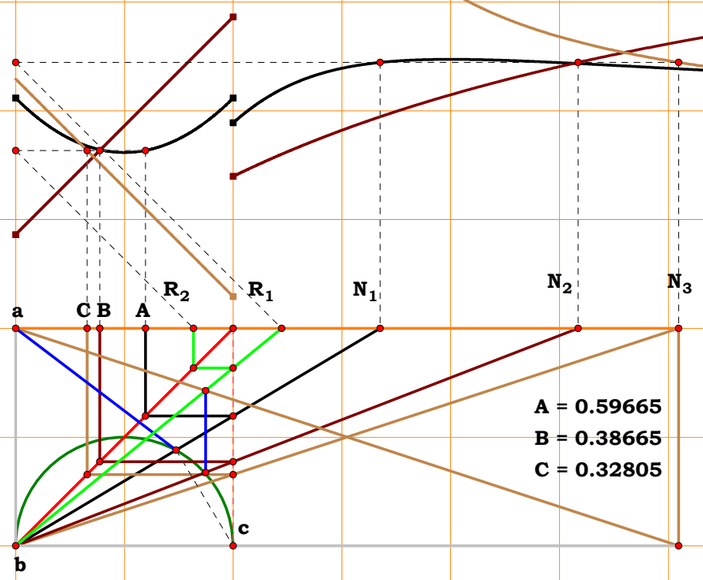
$$R_1 - \frac{1}{((((A^2+1)-A)+B)-C)} = 0.00000$$

$$\frac{1}{((((A^2+1)-A)+B)-C)} - \frac{N_1^2 \cdot N_2 \cdot N_3}{(N_2 \cdot N_3 + N_1 \cdot N_2 \cdot N_3 \cdot (N_1 - 1)) - N_1^2 \cdot (N_2 - N_3)} = 0.00000$$

$R_2 = 0.81794$

$(((A^2+1)-A)+B)-C = 0.81794$

$R_2 - ((((A^2+1)-A)+B)-C) = 0.00000$



$A = 0.59665$

$B = 0.38665$

$C = 0.32805$

$ab = 1.00000$

$N_1 = 1.67604$

$N_2 = 2.58629$

$N_3 = 3.04828$

$R_1 = 1.22258$

$$\frac{N_1^2 \cdot N_2 \cdot N_3}{(N_2 \cdot N_3 + N_1 \cdot N_2 \cdot N_3 \cdot (N_1 - 1)) - N_1^2 \cdot (N_2 - N_3)} = 1.22258$$

$$\frac{1}{((((A^2+1)-A)+B)-C)} = 1.22258$$

$$R_1 - \frac{N_1^2 \cdot N_2 \cdot N_3}{(N_2 \cdot N_3 + N_1 \cdot N_2 \cdot N_3 \cdot (N_1 - 1)) - N_1^2 \cdot (N_2 - N_3)} = 0.00000$$

$$R_1 - \frac{1}{((((A^2+1)-A)+B)-C)} = 0.00000$$

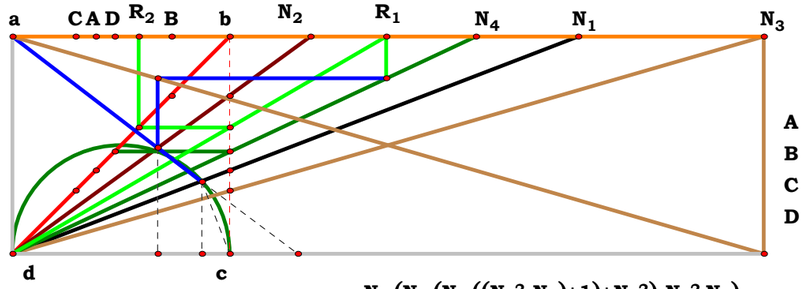
$$\frac{1}{((((A^2+1)-A)+B)-C)} - \frac{N_1^2 \cdot N_2 \cdot N_3}{(N_2 \cdot N_3 + N_1 \cdot N_2 \cdot N_3 \cdot (N_1 - 1)) - N_1^2 \cdot (N_2 - N_3)} = 0.00000$$

$R_2 = 0.81794$

$(((A^2+1)-A)+B)-C = 0.81794$

$R_2 - ((((A^2+1)-A)+B)-C) = 0.00000$

3OBT5R6



A = 0.38489
B = 0.72935
C = 0.28954
D = 0.46887

Unit = 1.00000
N1 = 2.59813
N2 = 1.37108
N3 = 3.45370
N4 = 2.13280

R1 = 1.71906

$$\frac{N_4\cdot(N_3\cdot(N_2\cdot((N_1^2-N_1)+1)+N_1^2)-N_1^2\cdot N_2)}{N_3\cdot((N_2+N_1^2\cdot N_2+N_1^2)-N_1\cdot N_2)} = 1.71906$$

$$\frac{((((A^2+1)-A)+B)-C)}{(D\cdot((A^2-A)+1+B))} = 1.71906$$

$$R_1-\frac{N_4\cdot(N_3\cdot(N_2\cdot((N_1^2-N_1)+1)+N_1^2)-N_1^2\cdot N_2)}{N_3\cdot((N_2+N_1^2\cdot N_2+N_1^2)-N_1\cdot N_2)} = 0.00000$$

$$R_1-\frac{((((A^2+1)-A)+B)-C)}{(D\cdot((A^2-A)+1+B))} = 0.00000$$

$$\frac{((((A^2+1)-A)+B)-C)}{(D\cdot((A^2-A)+1+B))}-\frac{N_4\cdot(N_3\cdot(N_2\cdot((N_1^2-N_1)+1)+N_1^2)-N_1^2\cdot N_2)}{N_3\cdot((N_2+N_1^2\cdot N_2+N_1^2)-N_1\cdot N_2)} = 0.00000$$

R2 = 0.58171

$$\frac{(D\cdot((A^2-A)+1+B))}{((((A^2+1)-A)+B)-C)} = 0.58171$$

$$R_2-\frac{(D\cdot((A^2-A)+1+B))}{((((A^2+1)-A)+B)-C)} = 0.00000$$

Given.

Unit. $ab := 1$

$N_1 := 2.59813 \quad N_2 := 1.27108$

$N_3 := 3.45370 \quad N_4 := 2.13280$

$$A := \frac{1}{N_1} \quad B := \frac{1}{N_2} \quad C := \frac{1}{N_3} \quad D := \frac{1}{N_4}$$

Descriptions.

$$bN_1 := \sqrt{1 + N_1^2} \quad bg := \frac{N_1}{bN_1} \quad de := \frac{bg}{bN_1}$$

$$be := N_1 \cdot de \quad bj := \frac{be}{1 - de} \quad bf := \frac{N_2 \cdot bj}{N_2 + bj}$$

$$fh := \frac{(N_3 - bf)}{N_3} \quad R_1 := N_4 \cdot fh$$

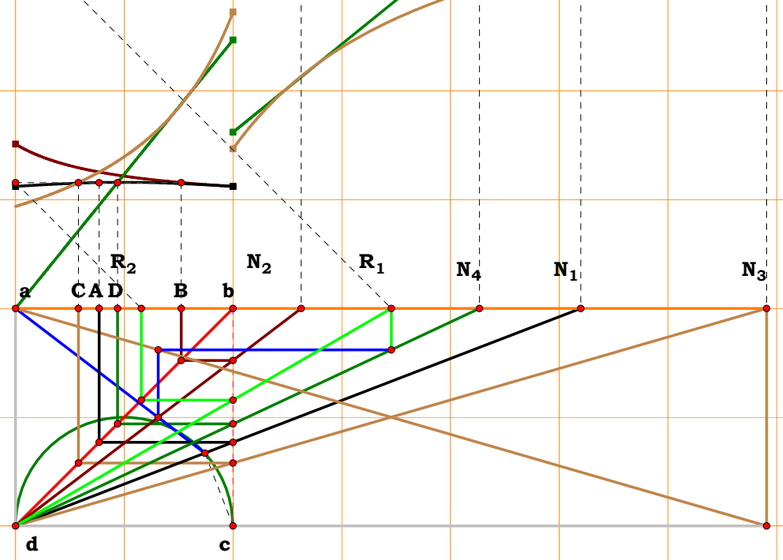
$$R_2 := \frac{1}{R_1} \quad R_1 = 1.734382$$

Definitions.

$$R_1 - \frac{N_4\cdot\left[N_3\cdot\left[N_2\cdot\left(N_1^2 - N_1 + 1\right) + N_1^2\right] - N_1^2\cdot N_2\right]}{N_3\cdot\left(N_2 + N_1^2\cdot N_2 + N_1^2 - N_1\cdot N_2\right)} = 0$$

$$N_1 - \frac{1}{A} = 0 \quad N_2 - \frac{1}{B} = 0 \quad N_3 - \frac{1}{C} = 0 \quad N_4 - \frac{1}{D} = 0$$

$$R_1 - \frac{\left(A^2 + 1 - A + B - C\right)}{D\cdot\left(A^2 - A + 1 + B\right)} = 0 \quad R_2 - \frac{D\cdot\left(A^2 - A + 1 + B\right)}{\left(A^2 + 1 - A + B - C\right)} = 0$$



Unit = 1.00000

A = 0.38489
B = 0.76128
C = 0.28954
D = 0.46887

$N_1 = 2.59813$
$N_2 = 1.31357$
$N_3 = 3.45370$
$N_4 = 2.13280$

$R_2 = 0.57879$

$$\frac{(D\cdot((A^2\text{-}A)\text{+}1\text{+}B))}{((((A^2\text{+}1)\text{-}A)\text{+}B)\text{-}C)} = 0.57879$$

$$R_2\text{-}\frac{(D\cdot((A^2\text{-}A)\text{+}1\text{+}B))}{((((A^2\text{+}1)\text{-}A)\text{+}B)\text{-}C)} = 0.00000$$

$R_1 = 1.72773$

$$\frac{N_4\cdot(N_3\cdot(N_2\cdot((N_1{}^2\text{-}N_1)\text{+}1)\text{+}N_1{}^2)\text{-}N_1{}^2\cdot N_2)}{N_3\cdot((N_2\text{+}N_1{}^2\cdot N_2\text{+}N_1{}^2)\text{-}N_1\cdot N_2)} = 1.72773$$

$$\frac{((((A^2\text{+}1)\text{-}A)\text{+}B)\text{-}C)}{(D\cdot((A^2\text{-}A)\text{+}1\text{+}B))} = 1.72773$$

$$R_1\text{-}\frac{N_4\cdot(N_3\cdot(N_2\cdot((N_1{}^2\text{-}N_1)\text{+}1)\text{+}N_1{}^2)\text{-}N_1{}^2\cdot N_2)}{N_3\cdot((N_2\text{+}N_1{}^2\cdot N_2\text{+}N_1{}^2)\text{-}N_1\cdot N_2)} = 0.00000$$

$$R_1\text{-}\frac{((((A^2\text{+}1)\text{-}A)\text{+}B)\text{-}C)}{(D\cdot((A^2\text{-}A)\text{+}1\text{+}B))} = 0.00000$$

$$\frac{((((A^2\text{+}1)\text{-}A)\text{+}B)\text{-}C)}{(D\cdot((A^2\text{-}A)\text{+}1\text{+}B))}\text{-}\frac{N_4\cdot(N_3\cdot(N_2\cdot((N_1{}^2\text{-}N_1)\text{+}1)\text{+}N_1{}^2)\text{-}N_1{}^2\cdot N_2)}{N_3\cdot((N_2\text{+}N_1{}^2\cdot N_2\text{+}N_1{}^2)\text{-}N_1\cdot N_2)} = 0.00000$$

3OBT5R7

Given.

Unit. $ab := 1$ $N_1 := 2.98960$

$N_2 := 2.27226$ $N_3 := 2.00311$

$A := \frac{1}{N_1}$ $B := \frac{1}{N_2}$ $C := \frac{1}{N_3}$

Descriptions.

$bN_1 := \sqrt{1 + N_1^2}$ $bg := \frac{N_1}{bN_1}$ $gh := \frac{bg}{bN_1}$

$fj := N_3 \cdot gh$ $bf := N_3 - fj$ $df := \frac{bf}{N_2}$

$R_1 := \frac{bf}{1 - df}$ $R_1 = 3.650476$

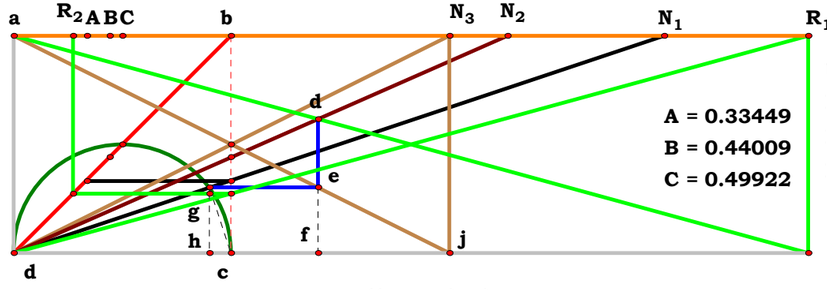
$R_2 := \frac{1}{R_1}$

Definitions.

$$R_1 - \frac{N_2 \cdot N_3 \cdot \left(N_1^2 - N_1 + 1\right)}{\left(N_1^2 + 1\right) \cdot N_2 - N_3 \cdot \left(N_1^2 - N_1 + 1\right)} = 0$$

$N_1 - \frac{1}{A} = 0$ $N_2 - \frac{1}{B} = 0$ $N_3 - \frac{1}{C} = 0$

$$R_1 - \frac{\left(A^2 - A + 1\right)}{\left(C - B + A \cdot B - A^2 \cdot B + A^2 \cdot C\right)} = 0 \qquad R_2 - \frac{A^2 \cdot C - A^2 \cdot B - B + C + A \cdot B}{\left(A^2 - A + 1\right)} = 0$$



A = 0.33449
B = 0.44009
C = 0.49922

Unit = 1.00000
N_1 = 2.98960
N_2 = 2.27226
N_3 = 2.00311

$R_1 = 3.65045$

$$\frac{N_2 \cdot N_3 \cdot ((N_1^2 - N_1) + 1)}{(N_1^2 + 1) \cdot N_2 - N_3 \cdot ((N_1^2 - N_1) + 1)} = 3.65045$$

$$\frac{((A^2 - A) + 1)}{((((C - B) + A \cdot B) - A^2 \cdot B) + A^2 \cdot C)} = 3.65045$$

$$R_1 - \frac{N_2 \cdot N_3 \cdot ((N_1^2 - N_1) + 1)}{(N_1^2 + 1) \cdot N_2 - N_3 \cdot ((N_1^2 - N_1) + 1)} = 0.00000$$

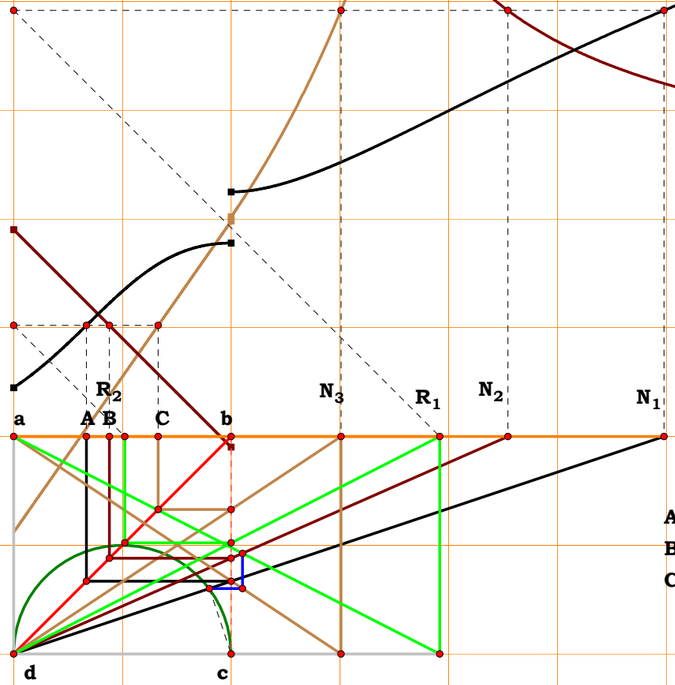
$$R_1 - \frac{((A^2 - A) + 1)}{((((C - B) + A \cdot B) - A^2 \cdot B) + A^2 \cdot C)} = 0.00000$$

$$\frac{((A^2 - A) + 1)}{((((C - B) + A \cdot B) - A^2 \cdot B) + A^2 \cdot C)} - \frac{N_2 \cdot N_3 \cdot ((N_1^2 - N_1) + 1)}{(N_1^2 + 1) \cdot N_2 - N_3 \cdot ((N_1^2 - N_1) + 1)} = 0.00000$$

$R_2 = 0.27394$

$$\frac{((((C - B) + A \cdot B) - A^2 \cdot B) + A^2 \cdot C)}{((A^2 - A) + 1)} = 0.27394$$

$$R_2 - \frac{((((C - B) + A \cdot B) - A^2 \cdot B) + A^2 \cdot C)}{((A^2 - A) + 1)} = 0.00000$$



Unit = 1.00000

N_1 = 2.98960

N_2 = 2.27226

N_3 = 1.50447

A = 0.33449

B = 0.44009

C = 0.66469

R_1 = 1.95849

$$\frac{N_2 \cdot N_3 \cdot ((N_1^2 - N_1) + 1)}{(N_1^2 + 1) \cdot N_2 - N_3 \cdot ((N_1^2 - N_1) + 1)} = 1.95849$$

$$\frac{((A^2 - A) + 1)}{((((C - B) + A \cdot B) - A^2 \cdot B) + A^2 \cdot C)} = 1.95849$$

R_2 = 0.51060

$$\frac{((((C - B) + A \cdot B) - A^2 \cdot B) + A^2 \cdot C)}{((A^2 - A) + 1)} = 0.51060$$

$$R_1 - \frac{N_2 \cdot N_3 \cdot ((N_1^2 - N_1) + 1)}{(N_1^2 + 1) \cdot N_2 - N_3 \cdot ((N_1^2 - N_1) + 1)} = 0.00000$$

$$R_1 - \frac{((A^2 - A) + 1)}{((((C - B) + A \cdot B) - A^2 \cdot B) + A^2 \cdot C)} = 0.00000$$

$$R_2 - \frac{((((C - B) + A \cdot B) - A^2 \cdot B) + A^2 \cdot C)}{((A^2 - A) + 1)} = 0.00000$$

$$\frac{((A^2 - A) + 1)}{((((C - B) + A \cdot B) - A^2 \cdot B) + A^2 \cdot C)} - \frac{N_2 \cdot N_3 \cdot ((N_1^2 - N_1) + 1)}{(N_1^2 + 1) \cdot N_2 - N_3 \cdot ((N_1^2 - N_1) + 1)} = 0.00000$$

3OBT5R8

Given.

Unit. $ab := 1$ $N_1 := 2.14107$

$N_2 := 1.43243$ $N_3 := 3.17316$

$N_4 := 3.83360$ $N_5 := 1.66257$

$A := \frac{1}{N_1}$ $B := \frac{1}{N_2}$ $C := \frac{1}{N_3}$ $D := \frac{1}{N_4}$ $E := \frac{1}{N_5}$

Descriptions.

$bN_1 := \sqrt{1 + N_1^{\,2}}$ $bd := \frac{N_1}{bN_1}$ $be := \frac{N_1 \cdot bd}{bN_1}$

$fg := \frac{be}{be + N_2}$ $bm := N_3 \cdot fg$ $bp := \frac{bm}{1 - fg}$

$bj := \frac{bp \cdot N_4}{bp + N_4}$ $hj := \frac{(N_5 - bj)}{N_5}$ $R_1 := \frac{bj}{hj}$

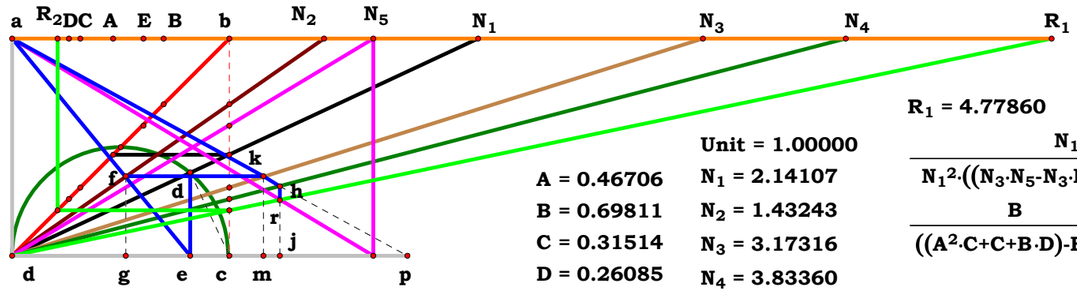
$R_2 := \frac{1}{R_1}$ $R_1 = 4.778579$

Definitions.

$$R_1 - \frac{N_1^{\,2} \cdot N_3 \cdot N_4 \cdot N_5}{N_1^{\,2} \cdot (N_3 \cdot N_5 - N_3 \cdot N_4 + N_2 \cdot N_4 \cdot N_5) + N_2 \cdot N_4 \cdot N_5} = 0$$

$N_1 - \frac{1}{A} = 0$ $N_2 - \frac{1}{B} = 0$ $N_3 - \frac{1}{C} = 0$ $N_4 - \frac{1}{D} = 0$ $N_5 - \frac{1}{E} = 0$

$R_1 - \frac{B}{A^2 \cdot C + C + B \cdot D - B \cdot E} = 0$ $R_2 - \frac{A^2 \cdot C + C + B \cdot D - B \cdot E}{B} = 0$



Unit = 1.00000

A = 0.46706 N_1 = 2.14107

B = 0.69811 N_2 = 1.43243

C = 0.31514 N_3 = 3.17316

D = 0.26085 N_4 = 3.83360

E = 0.60148 N_5 = 1.66257

$R_1 = 4.77860$

$$\frac{N_1^{\,2} \cdot N_3 \cdot N_4 \cdot N_5}{N_1^{\,2} \cdot ((N_3 \cdot N_5 - N_3 \cdot N_4) + N_2 \cdot N_4 \cdot N_5) + N_2 \cdot N_4 \cdot N_5} = 4.77860$$

$$\frac{B}{((A^2 \cdot C + C + B \cdot D) - B \cdot E)} = 4.77860$$

$$R_1 - \frac{N_1^{\,2} \cdot N_3 \cdot N_4 \cdot N_5}{N_1^{\,2} \cdot ((N_3 \cdot N_5 - N_3 \cdot N_4) + N_2 \cdot N_4 \cdot N_5) + N_2 \cdot N_4 \cdot N_5} = 0.00000$$

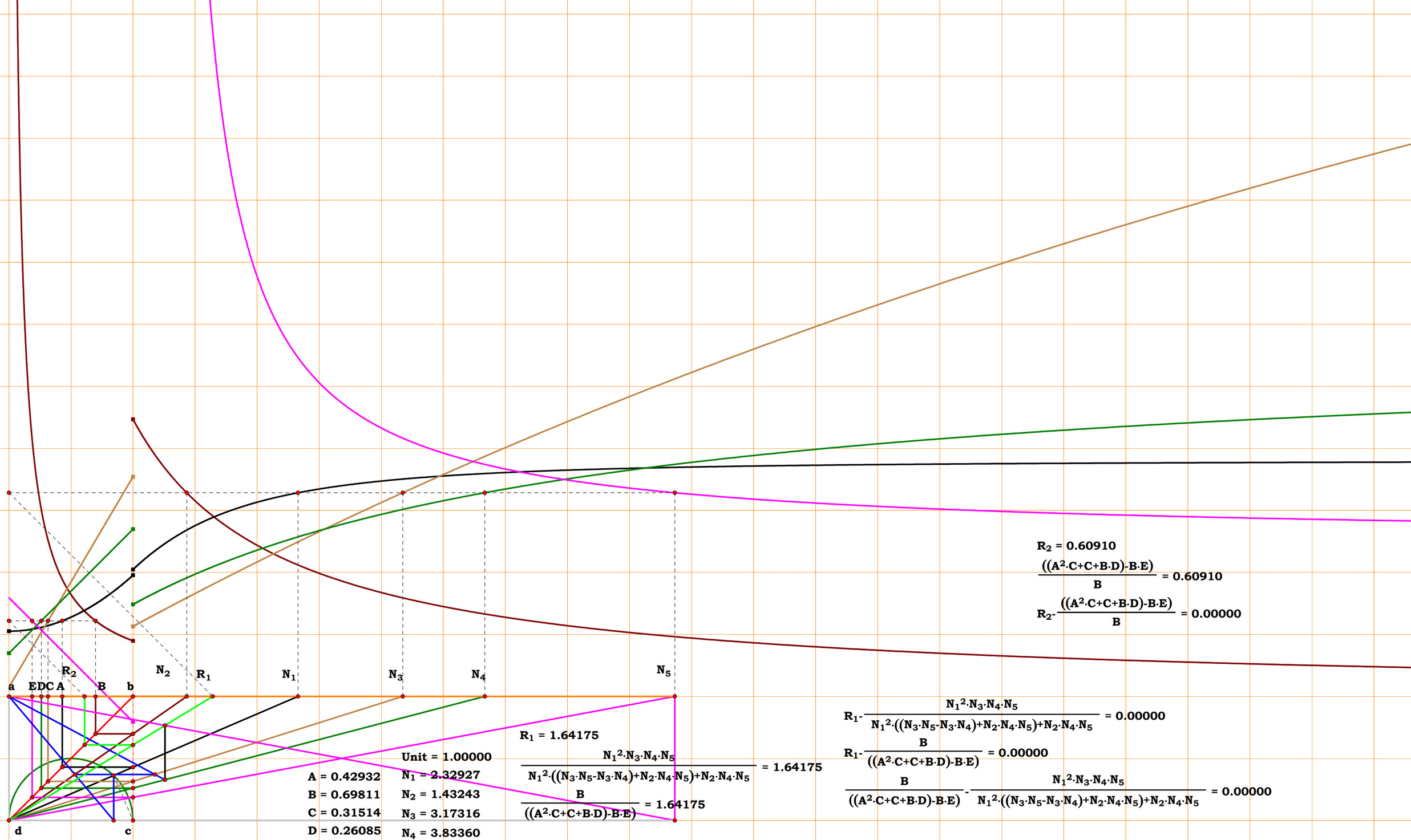
$$R_1 - \frac{B}{((A^2 \cdot C + C + B \cdot D) - B \cdot E)} = 0.00000$$

$$\frac{B}{((A^2 \cdot C + C + B \cdot D) - B \cdot E)} - \frac{N_1^{\,2} \cdot N_3 \cdot N_4 \cdot N_5}{N_1^{\,2} \cdot ((N_3 \cdot N_5 - N_3 \cdot N_4) + N_2 \cdot N_4 \cdot N_5) + N_2 \cdot N_4 \cdot N_5} = 0.00000$$

$R_2 = 0.20927$

$$\frac{((A^2 \cdot C + C + B \cdot D) - B \cdot E)}{B} = 0.20927$$

$$R_2 - \frac{((A^2 \cdot C + C + B \cdot D) - B \cdot E)}{B} = 0.00000$$



Unit = 1.00000
$A = 0.42932$
$B = 0.69811$
$C = 0.31514$
$D = 0.26085$
$E = 0.18637$
$N_1 = 2.32927$
$N_2 = 1.43243$
$N_3 = 3.17316$
$N_4 = 3.83360$
$N_5 = 5.36563$

$R_1 = 1.64175$

$$\frac{N_1^2 \cdot N_3 \cdot N_4 \cdot N_5}{N_1^2 \cdot ((N_3 \cdot N_5 - N_3 \cdot N_4) + N_2 \cdot N_4 \cdot N_5) + N_2 \cdot N_4 \cdot N_5} = 1.64175$$

$$\frac{B}{((A^2 \cdot C + C + B \cdot D) - B \cdot E)} = 1.64175$$

$R_2 = 0.60910$

$$\frac{((A^2 \cdot C + C + B \cdot D) - B \cdot E)}{B} = 0.60910$$

$$R_2 - \frac{((A^2 \cdot C + C + B \cdot D) - B \cdot E)}{B} = 0.00000$$

$$R_1 - \frac{N_1^2 \cdot N_3 \cdot N_4 \cdot N_5}{N_1^2 \cdot ((N_3 \cdot N_5 - N_3 \cdot N_4) + N_2 \cdot N_4 \cdot N_5) + N_2 \cdot N_4 \cdot N_5} = 0.00000$$

$$R_1 - \frac{B}{((A^2 \cdot C + C + B \cdot D) - B \cdot E)} = 0.00000$$

$$\frac{B}{((A^2 \cdot C + C + B \cdot D) - B \cdot E)} - \frac{N_1^2 \cdot N_3 \cdot N_4 \cdot N_5}{N_1^2 \cdot ((N_3 \cdot N_5 - N_3 \cdot N_4) + N_2 \cdot N_4 \cdot N_5) + N_2 \cdot N_4 \cdot N_5} = 0.00000$$

3OBT5R9

Given.

Unit. $ab := 1$

$N_1 := 2.04979 \quad N_2 := 2.59754$

$N_3 := 1.60626 \quad N_4 := 3.96634$

$A := \frac{1}{N_1} \quad B := \frac{1}{N_2} \quad C := \frac{1}{N_3} \quad D := \frac{1}{N_4}$

Descriptions.

$bN_1 := \sqrt{1 + N_1^2} \quad bd := \frac{N_1}{bN_1} \quad dh := \frac{bd}{bN_1}$

$bh := \frac{N_1 \cdot bd}{bN_1} \quad bm := \frac{bh}{1 - dh} \quad bg := \frac{N_2 \cdot bm}{N_2 + bm}$

$eg := \frac{N_3 - bg}{N_3} \quad bk := N_4 \cdot eg \quad R_1 := \frac{bk}{1 - eg}$

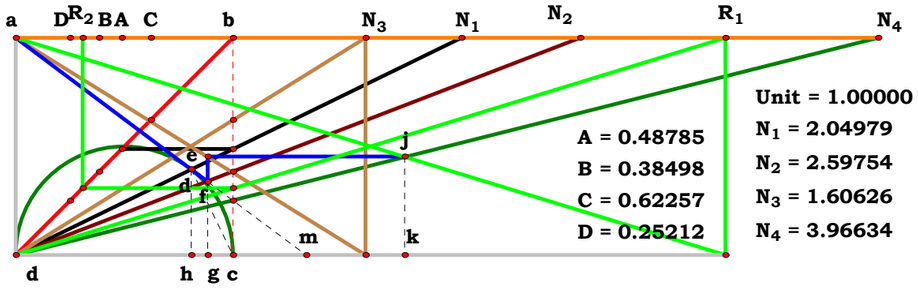
$R_2 := \frac{1}{R_1} \qquad R_1 = 3.265525$

Definitions.

$$R_1 - \frac{N_4 \cdot \left[N_3 \cdot \left(N_2 + N_1^2 \cdot N_2 + N_1^2 - N_1 \cdot N_2\right) - N_1^2 \cdot N_2\right]}{N_1^2 \cdot N_2} = 0$$

$N_1 - \frac{1}{A} = 0 \quad N_2 - \frac{1}{B} = 0 \quad N_3 - \frac{1}{C} = 0 \quad N_4 - \frac{1}{D} = 0$

$$R_1 - \frac{A^2 + 1 - A + B - C}{C \cdot D} = 0 \qquad R_2 - \frac{C \cdot D}{A^2 - A + B - C + 1} = 0$$



$$R_1 = 3.26551$$

$$\frac{N_4 \cdot (N_3 \cdot ((N_2 + N_1^2 \cdot N_2 + N_1^2) - N_1 \cdot N_2) - N_1^2 \cdot N_2)}{N_1^2 \cdot N_2} = 3.26551$$

$$\frac{((((A^2+1)-A)+B)-C)}{C \cdot D} = 3.26551$$

$$R_1 - \frac{N_4 \cdot (N_3 \cdot ((N_2 + N_1^2 \cdot N_2 + N_1^2) - N_1 \cdot N_2) - N_1^2 \cdot N_2)}{N_1^2 \cdot N_2} = 0.00000$$

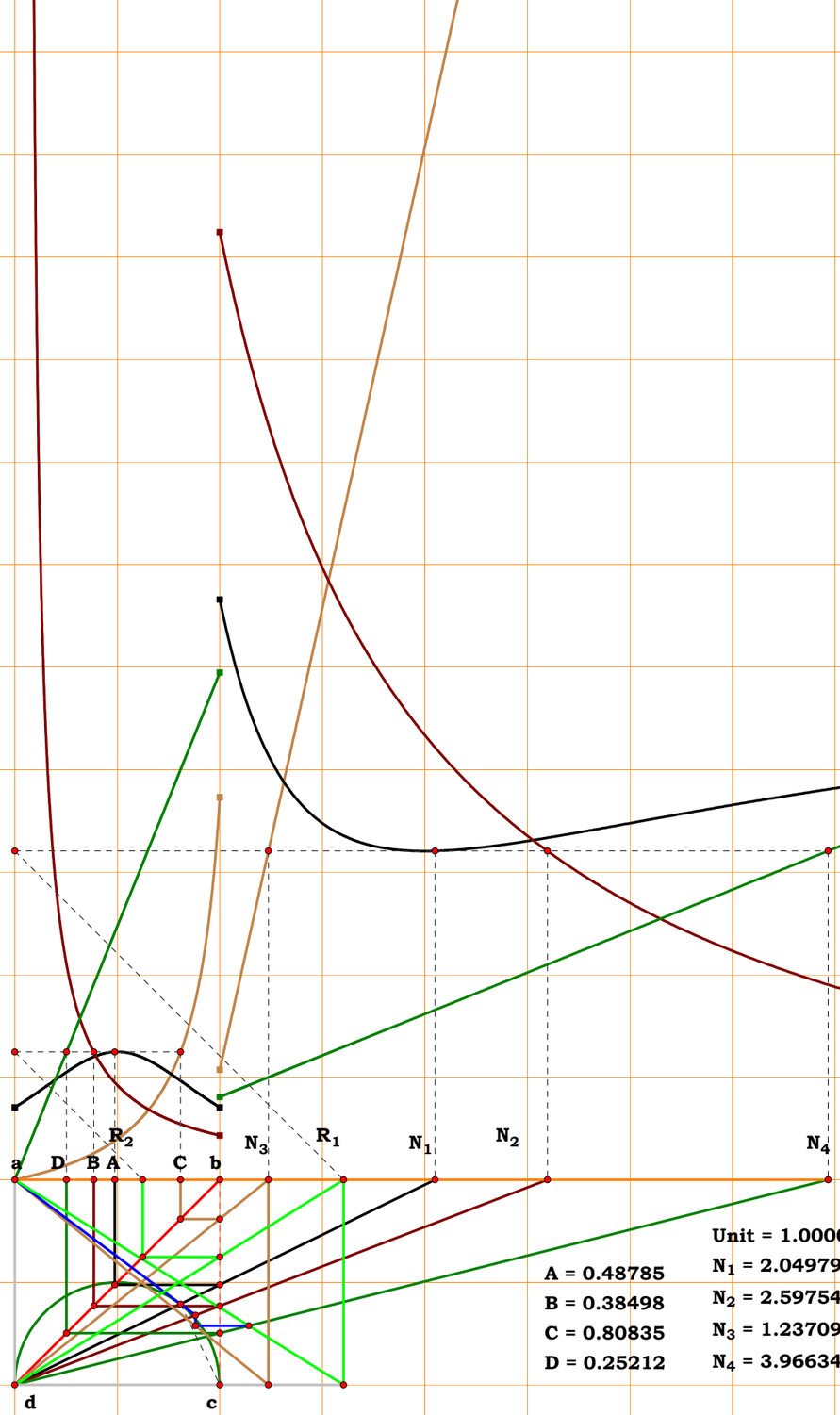
$$R_1 - \frac{((((A^2+1)-A)+B)-C)}{C \cdot D} = 0.00000$$

$$\frac{((((A^2+1)-A)+B)-C)}{C \cdot D} - \frac{N_4 \cdot (N_3 \cdot ((N_2 + N_1^2 \cdot N_2 + N_1^2) - N_1 \cdot N_2) - N_1^2 \cdot N_2)}{N_1^2 \cdot N_2} = 0.00000$$

$$R_2 = 0.30623$$

$$\frac{C \cdot D}{((((A^2+1)-A)+B)-C)} = 0.30623$$

$$R_2 - \frac{C \cdot D}{((((A^2+1)-A)+B)-C)} = 0.00000$$



Unit = 1.00000
N_1 = 2.04979
N_2 = 2.59754
N_3 = 1.23709
N_4 = 3.96634

A = 0.48785
B = 0.38498
C = 0.80835
D = 0.25212

R_1 = 1.60341

$$\frac{N_4\cdot(N_3\cdot((N_2+N_1^2\cdot N_2+N_1^2)-N_1\cdot N_2)-N_1^2\cdot N_2)}{N_1^2\cdot N_2} = 1.60341$$

$$\frac{((((A^2+1)-A)+B)-C)}{C\cdot D} = 1.60341$$

R_2 = 0.62367

$$\frac{C\cdot D}{((((A^2+1)-A)+B)-C)} = 0.62367$$

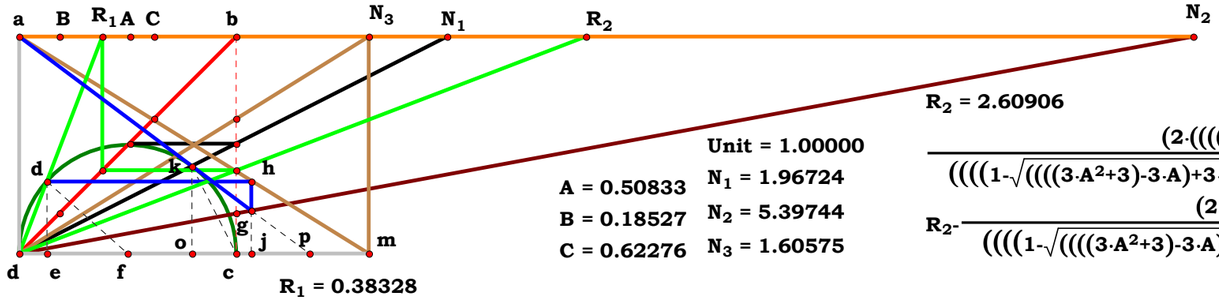
$$R_2-\frac{C\cdot D}{((((A^2+1)-A)+B)-C)} = 0.00000$$

$$R_1-\frac{N_4\cdot(N_3\cdot((N_2+N_1^2\cdot N_2+N_1^2)-N_1\cdot N_2)-N_1^2\cdot N_2)}{N_1^2\cdot N_2} = 0.00000$$

$$R_1-\frac{((((A^2+1)-A)+B)-C)}{C\cdot D} = 0.00000$$

$$\frac{((((A^2+1)-A)+B)-C)}{C\cdot D}-\frac{N_4\cdot(N_3\cdot((N_2+N_1^2\cdot N_2+N_1^2)-N_1\cdot N_2)-N_1^2\cdot N_2)}{N_1^2\cdot N_2} = 0.00000$$

3OBT5R10



Unit = 1.00000
A = 0.50833
B = 0.18527
C = 0.62276
N1 = 1.96724
N2 = 5.39744
N3 = 1.60575

R2 = 2.60906

$$\frac{(2\cdot((((A^2+1)-A)+B)-C))}{((((1-\sqrt{((((3\cdot A^2+3)-3\cdot A)+3\cdot B)-2\cdot C)\cdot((A-1-A^2-B)+2\cdot C)})+A^2)-A)+B)} = 2.60906$$

$$R_2-\frac{(2\cdot((((A^2+1)-A)+B)-C))}{((((1-\sqrt{((((3\cdot A^2+3)-3\cdot A)+3\cdot B)-2\cdot C)\cdot((A-1-A^2-B)+2\cdot C)})+A^2)-A)+B)} = 0.00000$$

Given.

Unit. $ab := 1$ $N_1 := 1.96724$

$N_2 := 5.39744$ $N_3 := 1.60575$

$$A := \frac{1}{N_1} \quad B := \frac{1}{N_2} \quad C := \frac{1}{N_3}$$

Descriptions.

$$bN_1 := \sqrt{1 + N_1^2} \quad bk := \frac{N_1}{bN_1} \quad bo := \frac{N_1 \cdot bk}{bN_1}$$

$$ko := \frac{bk}{bN_1} \quad bp := \frac{bo}{1 - ko} \quad bj := \frac{N_2 \cdot bp}{N_2 + bp}$$

$$jo := N_3 - bj \quad hj := \frac{jo}{N_3} \quad ef := \sqrt{\left(\frac{1}{2}\right)^2 - hj^2}$$

$$be := \frac{1}{2} - ef \quad R_1 := \frac{be}{hj} \quad R_1 = 0.383282$$

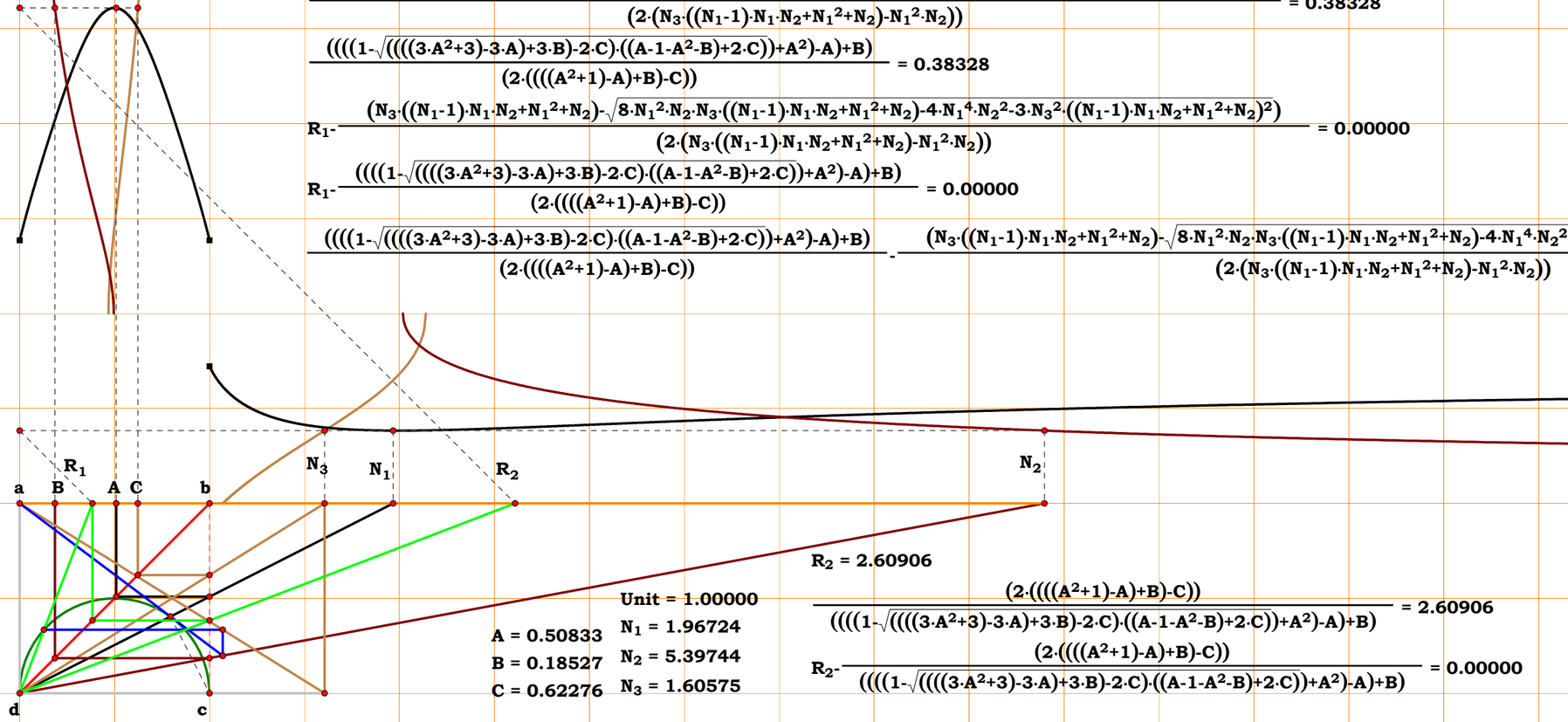
$$R_2 := \frac{1}{R_1} \qquad \frac{((((1-\sqrt{((((3\cdot A^2+3)-3\cdot A)+3\cdot B)-2\cdot C)\cdot((A-1-A^2-B)+2\cdot C)})+A^2)-A)+B)}{(2\cdot((((A^2+1)-A)+B)-C))} - \frac{(N_3\cdot((N_1-1)\cdot N_1\cdot N_2+N_1^2+N_2)-\sqrt{8\cdot N_1^2\cdot N_2\cdot N_3\cdot((N_1-1)\cdot N_1\cdot N_2+N_1^2+N_2)-4\cdot N_1^4\cdot N_2^2-3\cdot N_3^2\cdot((N_1-1)\cdot N_1\cdot N_2+N_1^2+N_2)^2})}{(2\cdot(N_3\cdot((N_1-1)\cdot N_1\cdot N_2+N_1^2+N_2)-N_1^2\cdot N_2))} = 0.00000$$

Definitions.

$$R_1 - \frac{N_3\cdot\left[N_1^2+N_2+N_1\cdot N_2\cdot(N_1-1)\right]-\sqrt{8\cdot N_1^2\cdot N_2\cdot N_3\cdot\left[N_1^2+N_2+N_1\cdot N_2\cdot(N_1-1)\right]-4\cdot N_1^4\cdot N_2^2-3\cdot N_3^2\cdot\left[N_1^2+N_2+N_1\cdot N_2\cdot(N_1-1)\right]^2}}{2\cdot\left[N_3\cdot\left[N_1^2+N_2+N_1\cdot N_2\cdot(N_1-1)\right]-N_1^2\cdot N_2\right]} = 0$$

$$N_1 - \frac{1}{A} = 0 \quad N_2 - \frac{1}{B} = 0 \quad N_3 - \frac{1}{C} = 0$$

$$R_1 - \frac{1-\sqrt{(3\cdot A^2+3-3\cdot A+3\cdot B-2\cdot C)\cdot(A-1-A^2-B+2\cdot C)}+(A^2-A+B)}{2\cdot(A^2+1-A+B-C)} = 0 \qquad R_2 - \frac{2\cdot(A^2+1-A+B-C)}{1-\sqrt{(3\cdot A^2+3-3\cdot A+3\cdot B-2\cdot C)\cdot(A-1-A^2-B+2\cdot C)}+(A^2-A+B)} = 0$$



$$R_1 = 0.38328$$

$$\frac{\left(N_3\cdot\left(\left(N_1-1\right)\cdot N_1\cdot N_2+N_1^2+N_2\right)-\sqrt{8\cdot N_1^2\cdot N_2\cdot N_3\cdot\left(\left(N_1-1\right)\cdot N_1\cdot N_2+N_1^2+N_2\right)-4\cdot N_1^4\cdot N_2^2-3\cdot N_3^2\cdot\left(\left(N_1-1\right)\cdot N_1\cdot N_2+N_1^2+N_2\right)^2}\right)}{\left(2\cdot\left(N_3\cdot\left(\left(N_1-1\right)\cdot N_1\cdot N_2+N_1^2+N_2\right)-N_1^2\cdot N_2\right)\right)} = 0.38328$$

$$\frac{\left(\left(\left(1-\sqrt{\left(\left(\left(\left(3\cdot A^2+3\right)-3\cdot A\right)+3\cdot B\right)-2\cdot C\right)\cdot\left(\left(A-1-A^2-B\right)+2\cdot C\right)}\right)+A^2\right)-A\right)+B\right)}{\left(2\cdot\left(\left(\left(A^2+1\right)-A\right)+B\right)-C\right)\right)} = 0.38328$$

$$R_1-\frac{\left(N_3\cdot\left(\left(N_1-1\right)\cdot N_1\cdot N_2+N_1^2+N_2\right)-\sqrt{8\cdot N_1^2\cdot N_2\cdot N_3\cdot\left(\left(N_1-1\right)\cdot N_1\cdot N_2+N_1^2+N_2\right)-4\cdot N_1^4\cdot N_2^2-3\cdot N_3^2\cdot\left(\left(N_1-1\right)\cdot N_1\cdot N_2+N_1^2+N_2\right)^2}\right)}{\left(2\cdot\left(N_3\cdot\left(\left(N_1-1\right)\cdot N_1\cdot N_2+N_1^2+N_2\right)-N_1^2\cdot N_2\right)\right)} = 0.00000$$

$$R_1-\frac{\left(\left(\left(1-\sqrt{\left(\left(\left(\left(3\cdot A^2+3\right)-3\cdot A\right)+3\cdot B\right)-2\cdot C\right)\cdot\left(\left(A-1-A^2-B\right)+2\cdot C\right)}\right)+A^2\right)-A\right)+B\right)}{\left(2\cdot\left(\left(\left(A^2+1\right)-A\right)+B\right)-C\right)\right)} = 0.00000$$

$$\frac{\left(\left(\left(1-\sqrt{\left(\left(\left(\left(3\cdot A^2+3\right)-3\cdot A\right)+3\cdot B\right)-2\cdot C\right)\cdot\left(\left(A-1-A^2-B\right)+2\cdot C\right)}\right)+A^2\right)-A\right)+B\right)}{\left(2\cdot\left(\left(\left(A^2+1\right)-A\right)+B\right)-C\right)\right)}-\frac{\left(N_3\cdot\left(\left(N_1-1\right)\cdot N_1\cdot N_2+N_1^2+N_2\right)-\sqrt{8\cdot N_1^2\cdot N_2\cdot N_3\cdot\left(\left(N_1-1\right)\cdot N_1\cdot N_2+N_1^2+N_2\right)-4\cdot N_1^4\cdot N_2^2-3\cdot N_3^2\cdot\left(\left(N_1-1\right)\cdot N_1\cdot N_2+N_1^2+N_2\right)^2}\right)}{\left(2\cdot\left(N_3\cdot\left(\left(N_1-1\right)\cdot N_1\cdot N_2+N_1^2+N_2\right)-N_1^2\cdot N_2\right)\right)} = 0.00000$$

$$A = 0.50833$$

$$B = 0.18527$$

$$C = 0.62276$$

$$\text{Unit} = 1.00000$$

$$N_1 = 1.96724$$

$$N_2 = 5.39744$$

$$N_3 = 1.60575$$

$$R_2 = 2.60906$$

$$\frac{\left(2\cdot\left(\left(\left(A^2+1\right)-A\right)+B\right)-C\right)\right)}{\left(\left(\left(1-\sqrt{\left(\left(\left(\left(3\cdot A^2+3\right)-3\cdot A\right)+3\cdot B\right)-2\cdot C\right)\cdot\left(\left(A-1-A^2-B\right)+2\cdot C\right)}\right)+A^2\right)-A\right)+B\right)} = 2.60906$$

$$R_2-\frac{\left(2\cdot\left(\left(\left(A^2+1\right)-A\right)+B\right)-C\right)\right)}{\left(\left(\left(1-\sqrt{\left(\left(\left(\left(3\cdot A^2+3\right)-3\cdot A\right)+3\cdot B\right)-2\cdot C\right)\cdot\left(\left(A-1-A^2-B\right)+2\cdot C\right)}\right)+A^2\right)-A\right)+B\right)} = 0.00000$$

3OBT5R11

Given.

Unit. $ab := 1$ $N_1 := 2.55582$

$N_2 := 1.22834$ $N_3 := 1.60785$

$A := \frac{1}{N_1}$ $B := \frac{1}{N_2}$ $C := \frac{1}{N_3}$

Descriptions.

$bN_1 := \sqrt{1 + N_1^{\,2}}$ $bk := \frac{N_1}{bN_1}$ $km := \frac{bk}{bN_1}$

$bm := \frac{N_1 \cdot bk}{bN_1}$ $bp := \frac{bm}{1 - km}$ $bh := \frac{N_2 \cdot bp}{N_2 + bp}$

$gh := \frac{bh}{N_2}$ $fj := N_3 \cdot gh$ $bf := N_3 - fj$ $ef := \sqrt{bf \cdot (1 - bf)}$

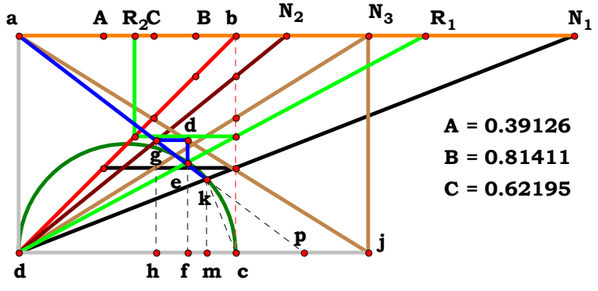
$R_1 := \frac{bf}{ef}$ $R_2 := \frac{1}{R_1}$ $R_1 = 1.867998$

Definitions.

$$R_1 - \frac{N_2 \cdot N_3 \cdot \left(N_1^{\,2} - N_1 + 1\right)}{\sqrt{N_2 \cdot N_3 \cdot \left(N_1^{\,2} - N_1 + 1\right) \cdot \left[N_1^{\,2} \cdot \left(N_2 - N_2 \cdot N_3 + 1\right) + N_1 \cdot N_2 \cdot \left(N_3 - 1\right) + N_2 - N_2 \cdot N_3\right]}} = 0$$

$N_1 - \frac{1}{A} = 0$ $N_2 - \frac{1}{B} = 0$ $N_3 - \frac{1}{C} = 0$

$$R_1 - \frac{\left(A^2 - A + 1\right)}{\sqrt{\left(A^2 - A + 1\right) \cdot \left(C \cdot A^2 - A^2 + A - C \cdot A - 1 + C + B \cdot C\right)}} = 0 \qquad R_2 - \frac{\sqrt{\left(A^2 - A + 1\right) \cdot \left(C \cdot A^2 - A^2 + A - C \cdot A - 1 + C + B \cdot C\right)}}{\left(A^2 - A + 1\right)} = 0$$



A = 0.39126
B = 0.81411
C = 0.62195

Unit = 1.00000
N_1 = 2.55582
N_2 = 1.22834
N_3 = 1.60785

$R_1 = 1.86798$

$$\frac{N_2 \cdot N_3 \cdot ((N_1^{\,2} - N_1) + 1)}{\sqrt{N_2 \cdot N_3 \cdot ((N_1^{\,2} - N_1) + 1) \cdot ((N_1^{\,2} \cdot ((N_2 - N_2 \cdot N_3) + 1) + N_1 \cdot N_2 \cdot (N_3 - 1) + N_2) - N_2 \cdot N_3)}} = 1.86798$$

$$\frac{((A^2 - A) + 1)}{\sqrt{((A^2 - A) + 1) \cdot ((((A^2 \cdot C - A^2) + A) - A \cdot C - 1) + C + B \cdot C)}} = 1.86798$$

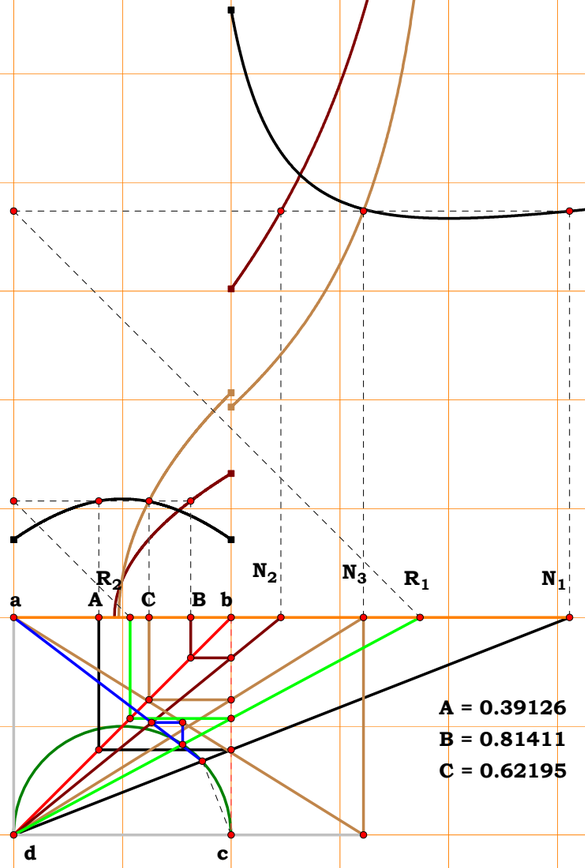
$$R_1 - \frac{N_2 \cdot N_3 \cdot ((N_1^{\,2} - N_1) + 1)}{\sqrt{N_2 \cdot N_3 \cdot ((N_1^{\,2} - N_1) + 1) \cdot ((N_1^{\,2} \cdot ((N_2 - N_2 \cdot N_3) + 1) + N_1 \cdot N_2 \cdot (N_3 - 1) + N_2) - N_2 \cdot N_3)}} = 0.00000$$

$$R_1 - \frac{((A^2 - A) + 1)}{\sqrt{((A^2 - A) + 1) \cdot ((((A^2 \cdot C - A^2) + A) - A \cdot C - 1) + C + B \cdot C)}} = 0.00000$$

$$\frac{((A^2 - A) + 1)}{\sqrt{((A^2 - A) + 1) \cdot ((((A^2 \cdot C - A^2) + A) - A \cdot C - 1) + C + B \cdot C)}} - \frac{N_2 \cdot N_3 \cdot ((N_1^{\,2} - N_1) + 1)}{\sqrt{N_2 \cdot N_3 \cdot ((N_1^{\,2} - N_1) + 1) \cdot ((N_1^{\,2} \cdot ((N_2 - N_2 \cdot N_3) + 1) + N_1 \cdot N_2 \cdot (N_3 - 1) + N_2) - N_2 \cdot N_3)}} = 0.00000$$

$R_2 = 0.53534$

$$\frac{\sqrt{((A^2 - A) + 1) \cdot ((((A^2 \cdot C - A^2) + A) - A \cdot C - 1) + C + B \cdot C)}}{((A^2 - A) + 1)} = 0.53534$$



Unit = 1.00000
N_1 = 2.55582
N_2 = 1.22834
N_3 = 1.60785

A = 0.39126
B = 0.81411
C = 0.62195

$$R_1 - \frac{N_2 \cdot N_3 \cdot ((N_1^2 - N_1)+1)}{\sqrt{N_2 \cdot N_3 \cdot ((N_1^2 - N_1)+1) \cdot ((N_1^2 \cdot ((N_2 - N_2 \cdot N_3)+1)+N_1 \cdot N_2 \cdot (N_3 - 1)+N_2) - N_2 \cdot N_3)}} = 0.00000$$

$$R_1 - \frac{((A^2 - A)+1)}{\sqrt{((A^2 - A)+1) \cdot ((((A^2 \cdot C - A^2)+A) - A \cdot C - 1)+C+B \cdot C)}} = 0.00000$$

$$\frac{((A^2 - A)+1)}{\sqrt{((A^2 - A)+1) \cdot ((((A^2 \cdot C - A^2)+A) - A \cdot C - 1)+C+B \cdot C)}} - \frac{N_2 \cdot N_3 \cdot ((N_1^2 - N_1)+1)}{\sqrt{N_2 \cdot N_3 \cdot ((N_1^2 - N_1)+1) \cdot ((N_1^2 \cdot ((N_2 - N_2 \cdot N_3)+1)+N_1 \cdot N_2 \cdot (N_3 - 1)+N_2) - N_2 \cdot N_3)}} = 0.00000$$

R_2 = 0.53534

$$\frac{\sqrt{((A^2 - A)+1) \cdot ((((A^2 \cdot C - A^2)+A) - A \cdot C - 1)+C+B \cdot C)}}{((A^2 - A)+1)} = 0.53534$$

R_1 = 1.86798

$$\frac{N_2 \cdot N_3 \cdot ((N_1^2 - N_1)+1)}{\sqrt{N_2 \cdot N_3 \cdot ((N_1^2 - N_1)+1) \cdot ((N_1^2 \cdot ((N_2 - N_2 \cdot N_3)+1)+N_1 \cdot N_2 \cdot (N_3 - 1)+N_2) - N_2 \cdot N_3)}} = 1.86798$$

$$\frac{((A^2 - A)+1)}{\sqrt{((A^2 - A)+1) \cdot ((((A^2 \cdot C - A^2)+A) - A \cdot C - 1)+C+B \cdot C)}} = 1.86798$$

3OBT6R0

Given.

Unit. $ab := 1$

$N_1 := 1.57379$ $N_2 := 2.64056$

$N_3 := 1.93565$ $N_4 := 5.44033$

$A := \frac{1}{N_1}$ $B := \frac{1}{N_2}$ $C := \frac{1}{N_3}$ $D := \frac{1}{N_4}$

Descriptions.

$bf := \frac{N_1 \cdot N_3}{N_1 + N_3}$ $ef := \sqrt{bf \cdot (1 - bf)}$

$ap := \frac{N_2}{ef}$ $R_1 := \frac{ap \cdot N_4}{ap + N_4}$

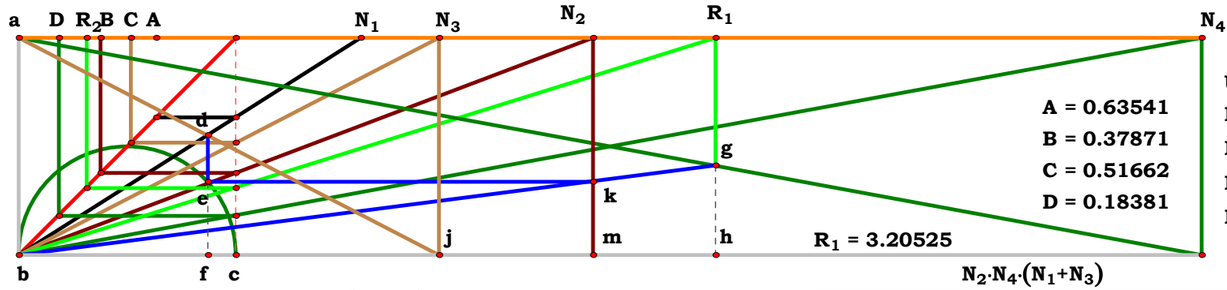
$R_2 := \frac{1}{R_1}$ $R_1 = 3.20525$

Definitions.

$$R_1 - \frac{N_2 \cdot N_4 \cdot (N_1 + N_3)}{N_1 \cdot N_2 + N_2 \cdot N_3 + N_4 \cdot \sqrt{N_1 \cdot N_3 \cdot (N_1 + N_3 - N_1 \cdot N_3)}} = 0$$

$N_1 - \frac{1}{A} = 0$ $N_2 - \frac{1}{B} = 0$ $N_3 - \frac{1}{C} = 0$ $N_4 - \frac{1}{D} = 0$

$R_1 - \frac{(A + C)}{B \cdot \sqrt{(A + C - 1)} + A \cdot D + C \cdot D} = 0$ $R_2 - \frac{B \cdot \sqrt{(A + C - 1)} + A \cdot D + C \cdot D}{(A + C)} = 0$



A = 0.63541
B = 0.37871
C = 0.51662
D = 0.18381

Unit = 1.00000
N_1 = 1.57379
N_2 = 2.64056
N_3 = 1.93565
N_4 = 5.44033

$R_1 = 3.20525$

$$R_1 - \frac{N_2 \cdot N_4 \cdot (N_1 + N_3)}{N_1 \cdot N_2 + N_2 \cdot N_3 + N_4 \cdot \sqrt{N_1 \cdot N_3 \cdot ((N_1 + N_3) - N_1 \cdot N_3)}} = 0.00000$$

$$\frac{N_2 \cdot N_4 \cdot (N_1 + N_3)}{N_1 \cdot N_2 + N_2 \cdot N_3 + N_4 \cdot \sqrt{N_1 \cdot N_3 \cdot ((N_1 + N_3) - N_1 \cdot N_3)}} = 3.20525$$

$$R_1 - \frac{(A+C)}{\left(B \cdot \sqrt{(A+C)-1} + D \cdot (A+C)\right)} = 0.00000$$

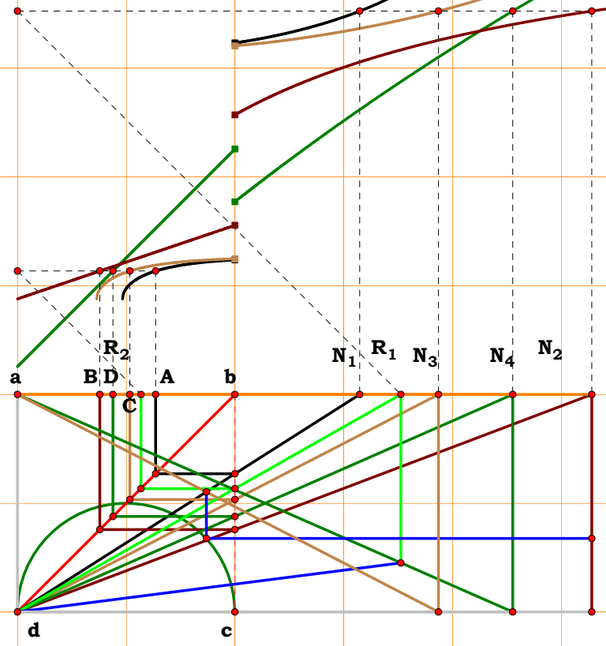
$$\frac{(A+C)}{\left(B \cdot \sqrt{(A+C)-1} + D \cdot (A+C)\right)} = 3.20525$$

$$\frac{(A+C)}{\left(B \cdot \sqrt{(A+C)-1} + D \cdot (A+C)\right)} - \frac{N_2 \cdot N_4 \cdot (N_1 + N_3)}{N_1 \cdot N_2 + N_2 \cdot N_3 + N_4 \cdot \sqrt{N_1 \cdot N_3 \cdot ((N_1 + N_3) - N_1 \cdot N_3)}} = 0.00000$$

$R_2 = 0.31199$

$$\frac{\left(B \cdot \sqrt{(A+C)-1} + D \cdot (A+C)\right)}{(A+C)} = 0.31199$$

$$R_2 - \frac{\left(B \cdot \sqrt{(A+C)-1} + D \cdot (A+C)\right)}{(A+C)} = 0.00000$$



A = 0.63541
B = 0.37871
C = 0.51662
D = 0.43926

Unit = 1.00000
N_1 = 1.57379
N_2 = 2.64056
N_3 = 1.93565
N_4 = 2.27654

R_1 = 1.76230

$$\frac{N_2 \cdot N_4 \cdot (N_1+N_3)}{N_1 \cdot N_2 + N_2 \cdot N_3 + N_4 \cdot \sqrt{N_1 \cdot N_3 \cdot ((N_1+N_3)-N_1 \cdot N_3)}} = 1.76230$$

$$\frac{(A+C)}{(B \cdot \sqrt{(A+C)-1}+D \cdot (A+C))} = 1.76230$$

R_2 = 0.56744

$$\frac{(B \cdot \sqrt{(A+C)-1}+D \cdot (A+C))}{(A+C)} = 0.56744$$

$$R_2 - \frac{(B \cdot \sqrt{(A+C)-1}+D \cdot (A+C))}{(A+C)} = 0.00000$$

$$R_1 - \frac{N_2 \cdot N_4 \cdot (N_1+N_3)}{N_1 \cdot N_2 + N_2 \cdot N_3 + N_4 \cdot \sqrt{N_1 \cdot N_3 \cdot ((N_1+N_3)-N_1 \cdot N_3)}} = 0.00000$$

$$R_1 - \frac{(A+C)}{(B \cdot \sqrt{(A+C)-1}+D \cdot (A+C))} = 0.00000$$

$$\frac{(A+C)}{(B \cdot \sqrt{(A+C)-1}+D \cdot (A+C))} - \frac{N_2 \cdot N_4 \cdot (N_1+N_3)}{N_1 \cdot N_2 + N_2 \cdot N_3 + N_4 \cdot \sqrt{N_1 \cdot N_3 \cdot ((N_1+N_3)-N_1 \cdot N_3)}} = 0.00000$$

3OBT6R1

Given.

Unit. $ab := 1$ $N_1 := 3.61362$

$N_2 := 2.23820$ $N_3 := 1.74317$

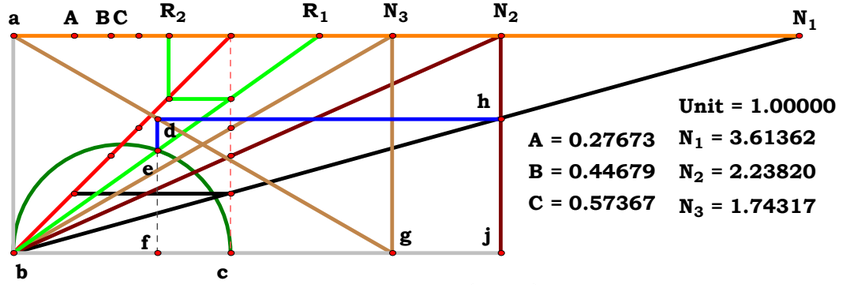
$A := \frac{1}{N_1}$ $B := \frac{1}{N_2}$ $C := \frac{1}{N_3}$

Descriptions.

$hj := \frac{N_2}{N_1}$ $bf := N_3 \cdot (1 - hj)$

$ef := \sqrt{bf \cdot (1 - bf)}$ $R_1 := \frac{bf}{ef}$

$R_2 := \frac{1}{R_1}$ $R_1 = 1.404157$



Unit = 1.00000

A = 0.27673 N_1 = 3.61362

B = 0.44679 N_2 = 2.23820

C = 0.57367 N_3 = 1.74317

$R_1 = 1.40416$

$\frac{N_1 \cdot N_3 \cdot (N_1 - N_2)}{N_1 \cdot \sqrt{N_3 \cdot (N_1 - N_2) \cdot ((N_1 - N_1 \cdot N_3) + N_2 \cdot N_3)}} = 1.40416$

$\frac{(B-A)}{\sqrt{(B-A) \cdot ((B \cdot C + A) - B)}} = 1.40416$

$R_1 - \frac{N_1 \cdot N_3 \cdot (N_1 - N_2)}{N_1 \cdot \sqrt{N_3 \cdot (N_1 - N_2) \cdot ((N_1 - N_1 \cdot N_3) + N_2 \cdot N_3)}} = 0.00000$

$R_1 - \frac{(B-A)}{\sqrt{(B-A) \cdot ((B \cdot C + A) - B)}} = 0.00000$

$\frac{(B-A)}{\sqrt{(B-A) \cdot ((B \cdot C + A) - B)}} - \frac{N_1 \cdot N_3 \cdot (N_1 - N_2)}{N_1 \cdot \sqrt{N_3 \cdot (N_1 - N_2) \cdot ((N_1 - N_1 \cdot N_3) + N_2 \cdot N_3)}} = 0.00000$

$R_2 = 0.71217$

$\frac{\sqrt{(B-A) \cdot ((B \cdot C + A) - B)}}{(B-A)} = 0.71217$

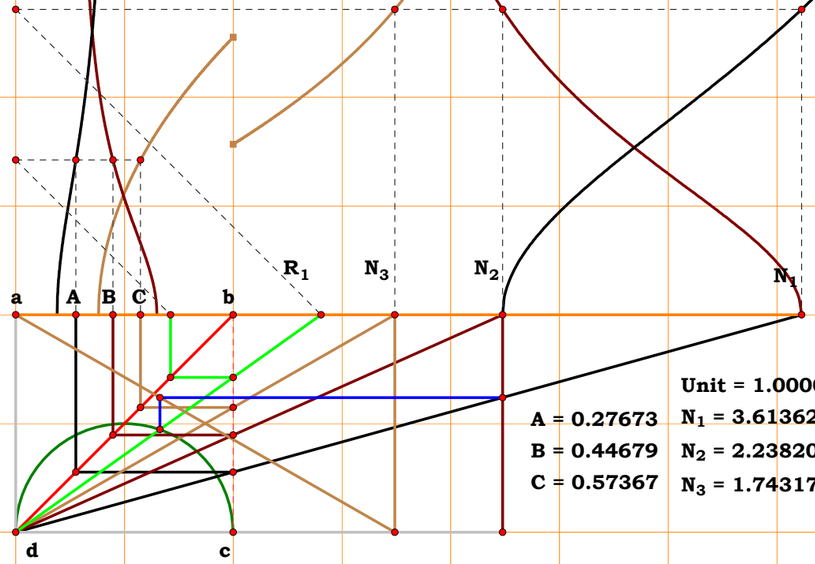
$R_2 - \frac{\sqrt{(B-A) \cdot ((B \cdot C + A) - B)}}{(B-A)} = 0.00000$

Definitions.

$R_1 - \frac{N_1 \cdot N_3 \cdot (N_1 - N_2)}{N_1 \cdot \sqrt{N_3 \cdot (N_1 - N_2) \cdot (N_1 - N_1 \cdot N_3 + N_2 \cdot N_3)}} = 0$

$N_1 - \frac{1}{A} = 0$ $N_2 - \frac{1}{B} = 0$ $N_3 - \frac{1}{C} = 0$

$R_1 - \frac{(B - A)}{\sqrt{(B - A) \cdot (B \cdot C + A - B)}} = 0$ $R_2 - -\frac{\sqrt{(B - A) \cdot (B \cdot C + A - B)}}{A - B} = 0$



Unit = 1.00000
A = 0.27673
B = 0.44679
C = 0.57367
N_1 = 3.61362
N_2 = 2.23820
N_3 = 1.74317

$$R_1 - \frac{N_1 \cdot N_3 \cdot (N_1 - N_2)}{N_1 \cdot \sqrt{N_3 \cdot (N_1 - N_2) \cdot ((N_1 - N_1 \cdot N_3) + N_2 \cdot N_3)}} = 0.00000$$

$$R_1 - \frac{(B-A)}{\sqrt{(B-A) \cdot ((B \cdot C + A) - B)}} = 0.00000$$

$$\frac{(B-A)}{\sqrt{(B-A) \cdot ((B \cdot C + A) - B)}} - \frac{N_1 \cdot N_3 \cdot (N_1 - N_2)}{N_1 \cdot \sqrt{N_3 \cdot (N_1 - N_2) \cdot ((N_1 - N_1 \cdot N_3) + N_2 \cdot N_3)}} = 0.00000$$

$R_1 = 1.40416$

$$\frac{N_1 \cdot N_3 \cdot (N_1 - N_2)}{N_1 \cdot \sqrt{N_3 \cdot (N_1 - N_2) \cdot ((N_1 - N_1 \cdot N_3) + N_2 \cdot N_3)}} = 1.40416$$

$$\frac{(B-A)}{\sqrt{(B-A) \cdot ((B \cdot C + A) - B)}} = 1.40416$$

$R_2 = 0.71217$

$$\frac{\sqrt{(B-A) \cdot ((B \cdot C + A) - B)}}{(B-A)} = 0.71217$$

$$R_2 - \frac{\sqrt{(B-A) \cdot ((B \cdot C + A) - B)}}{(B-A)} = 0.00000$$

3OBT6R2

Given.

Unit. $ab := 1$ $N_1 := 1.71853$

$N_2 := 1.32454$ $N_3 := 1.18055$

$A := \frac{1}{N_1}$ $B := \frac{1}{N_2}$ $C := \frac{1}{N_3}$

Descriptions.

$bf := \frac{N_1 \cdot N_3}{N_1 + N_3}$ $df := \sqrt{bf \cdot (1 - bf)}$

$ap := \frac{N_2}{df}$ $bp := \sqrt{ap^2 + 1}$

$bg := \frac{ap}{bp}$ $R_1 := \frac{ap \cdot bg}{bp}$

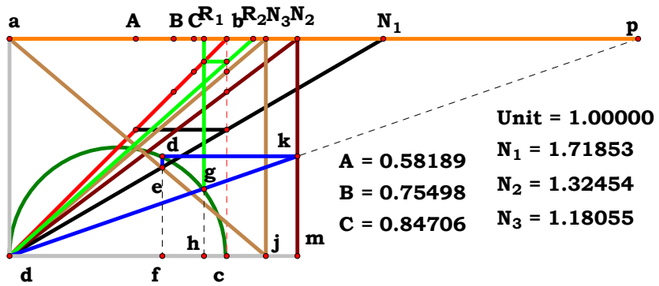
$R_2 := \frac{1}{R_1}$ $R_1 = 0.893063$

Definitions.

$$R_1 - \frac{N_2^2 \cdot (N_1 + N_3)^2}{(N_2^2 - N_3^2 + N_3) \cdot N_1^2 + (2 \cdot N_2^2 \cdot N_3 + N_3^2) \cdot N_1 + N_2^2 \cdot N_3^2} = 0$$

$N_1 - \frac{1}{A} = 0$ $N_2 - \frac{1}{B} = 0$ $N_3 - \frac{1}{C} = 0$

$$R_1 - \frac{(A + C)^2}{A^2 + A \cdot B^2 + 2 \cdot A \cdot C + B^2 \cdot C - B^2 + C^2} = 0 \qquad R_2 - \frac{A^2 + A \cdot B^2 + 2 \cdot A \cdot C + B^2 \cdot C - B^2 + C^2}{(A + C)^2} = 0$$



Unit = 1.00000
N_1 = 1.71853
N_2 = 1.32454
N_3 = 1.18055

A = 0.58189
B = 0.75498
C = 0.84706

$R_1 = 0.89306$

$$\frac{N_2^2 \cdot (N_1 + N_3)^2}{((N_2^2 - N_3^2) + N_3) \cdot N_1^2 + (2 \cdot N_2^2 \cdot N_3 + N_3^2) \cdot N_1 + N_2^2 \cdot N_3^2} = 0.89306$$

$$\frac{(A+C)^2}{(((A^2 + A \cdot B^2 + 2 \cdot A \cdot C + B^2 \cdot C) - B^2) + C^2)} = 0.89306$$

$$R_1 - \frac{N_2^2 \cdot (N_1 + N_3)^2}{((N_2^2 - N_3^2) + N_3) \cdot N_1^2 + (2 \cdot N_2^2 \cdot N_3 + N_3^2) \cdot N_1 + N_2^2 \cdot N_3^2} = 0.00000$$

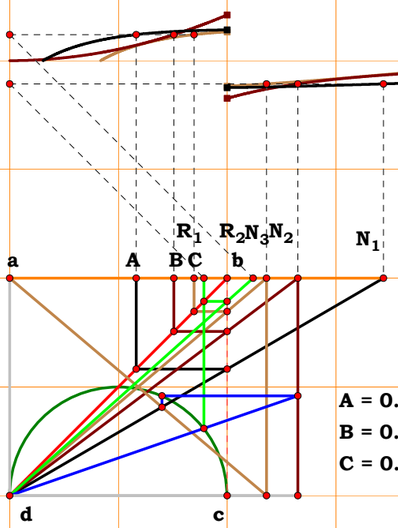
$$R_1 - \frac{(A+C)^2}{(((A^2 + A \cdot B^2 + 2 \cdot A \cdot C + B^2 \cdot C) - B^2) + C^2)} = 0.00000$$

$$\frac{(A+C)^2}{(((A^2 + A \cdot B^2 + 2 \cdot A \cdot C + B^2 \cdot C) - B^2) + C^2)} - \frac{N_2^2 \cdot (N_1 + N_3)^2}{((N_2^2 - N_3^2) + N_3) \cdot N_1^2 + (2 \cdot N_2^2 \cdot N_3 + N_3^2) \cdot N_1 + N_2^2 \cdot N_3^2} = 0.00000$$

$R_2 = 1.11974$

$$\frac{(((A^2 + A \cdot B^2 + 2 \cdot A \cdot C + B^2 \cdot C) - B^2) + C^2)}{(A+C)^2} = 1.11974$$

$$R_2 - \frac{(((A^2 + A \cdot B^2 + 2 \cdot A \cdot C + B^2 \cdot C) - B^2) + C^2)}{(A+C)^2} = 0.00000$$



$R_2 = 1.11974$

$$\frac{(((A^2+A\cdot B^2+2\cdot A\cdot C+B^2\cdot C)-B^2)+C^2)}{(A+C)^2} = 1.11974$$

$$R_2-\frac{(((A^2+A\cdot B^2+2\cdot A\cdot C+B^2\cdot C)-B^2)+C^2)}{(A+C)^2} = 0.00000$$

$A = 0.58189$
$B = 0.75498$
$C = 0.84706$

$Unit = 1.00000$
$N_1 = 1.71853$
$N_2 = 1.32454$
$N_3 = 1.18055$

$R_1 = 0.89306$

$$\frac{N_2^2\cdot(N_1+N_3)^2}{((N_2^2-N_3^2)+N_3)\cdot N_1^2+(2\cdot N_2^2\cdot N_3+N_3^2)\cdot N_1+N_2^2\cdot N_3^2} = 0.89306$$

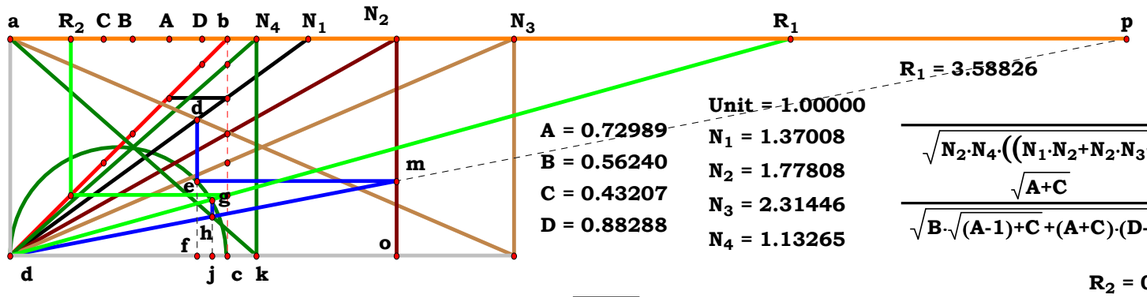
$$\frac{(A+C)^2}{(((A^2+A\cdot B^2+2\cdot A\cdot C+B^2\cdot C)-B^2)+C^2)} = 0.89306$$

$$R_1-\frac{N_2^2\cdot(N_1+N_3)^2}{((N_2^2-N_3^2)+N_3)\cdot N_1^2+(2\cdot N_2^2\cdot N_3+N_3^2)\cdot N_1+N_2^2\cdot N_3^2} = 0.00000$$

$$R_1-\frac{(A+C)^2}{(((A^2+A\cdot B^2+2\cdot A\cdot C+B^2\cdot C)-B^2)+C^2)} = 0.00000$$

$$\frac{(A+C)^2}{(((A^2+A\cdot B^2+2\cdot A\cdot C+B^2\cdot C)-B^2)+C^2)}-\frac{N_2^2\cdot(N_1+N_3)^2}{((N_2^2-N_3^2)+N_3)\cdot N_1^2+(2\cdot N_2^2\cdot N_3+N_3^2)\cdot N_1+N_2^2\cdot N_3^2} = 0.00000$$

3OBT6R3



$R_1 = 3.58826$

Unit = 1.00000
A = 0.72989
B = 0.56240
C = 0.43207
D = 0.88288
$N_1 = 1.37008$
$N_2 = 1.77808$
$N_3 = 2.31446$
$N_4 = 1.13265$

$$\frac{N_2 \cdot N_4 \cdot \sqrt{N_1+N_3}}{\sqrt{N_2 \cdot N_4 \cdot \left(\left(N_1 \cdot N_2 + N_2 \cdot N_3 + N_4 \cdot \sqrt{N_1 \cdot N_3 \cdot \left(\left(N_1+N_3\right) - N_1 \cdot N_3\right)}\right) - N_2 \cdot N_4 \cdot \left(N_1+N_3\right)\right)}} = 3.58826$$

$$\frac{\sqrt{A+C}}{\sqrt{B \cdot \sqrt{(A-1)+C} + (A+C) \cdot (D-1)}} = 3.58826$$

Given.

Unit. $ab := 1$

$N_1 := 1.37008 \qquad N_2 := 1.77808$

$N_3 := 2.31446 \qquad N_4 := 1.13265$

$$A := \frac{1}{N_1} \quad B := \frac{1}{N_2} \quad C := \frac{1}{N_3} \quad D := \frac{1}{N_4}$$

Descriptions.

$$bf := \frac{N_1 \cdot N_3}{N_1 + N_3} \qquad ef := \sqrt{bf \cdot (1 - bf)}$$

$$ap := \frac{N_2}{ef} \qquad bj := \frac{ap \cdot N_4}{ap + N_4}$$

$$gj := \sqrt{bj \cdot (1 - bj)} \qquad R_1 := \frac{bj}{gj}$$

$$R_2 := \frac{1}{R_1} \quad R_1 = 3.588199$$

Definitions.

$$R_1 - \frac{N_2 \cdot N_4 \cdot \sqrt{N_1 + N_3}}{\sqrt{N_2 \cdot N_4 \cdot \left[N_1 \cdot N_2 + N_2 \cdot N_3 + N_4 \cdot \sqrt{N_1 \cdot N_3 \cdot \left(N_1 + N_3 - N_1 \cdot N_3\right)} - N_2 \cdot N_4 \cdot \left(N_1 + N_3\right)\right]}} = 0$$

$$N_1 - \frac{1}{A} = 0 \qquad N_2 - \frac{1}{B} = 0 \qquad N_3 - \frac{1}{C} = 0 \qquad N_4 - \frac{1}{D} = 0$$

$$R_1 - \frac{\sqrt{(A+C)}}{\sqrt{B \cdot \sqrt{A-1+C} + (A+C) \cdot (D-1)}} = 0 \qquad R_2 - \frac{\sqrt{B \cdot \sqrt{A-1+C} + (A+C) \cdot (D-1)}}{\sqrt{(A+C)}} = 0$$

$R_2 = 0.27869$

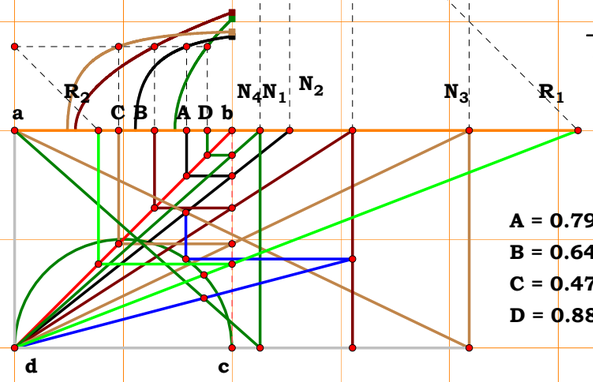
$$R_1 - \frac{N_2 \cdot N_4 \cdot \sqrt{N_1+N_3}}{\sqrt{N_2 \cdot N_4 \cdot \left(\left(N_1 \cdot N_2 + N_2 \cdot N_3 + N_4 \cdot \sqrt{N_1 \cdot N_3 \cdot \left(\left(N_1+N_3\right) - N_1 \cdot N_3\right)}\right) - N_2 \cdot N_4 \cdot \left(N_1+N_3\right)\right)}} = 0.00000$$

$$\frac{\sqrt{B \cdot \sqrt{(A-1)+C} + (A+C) \cdot (D-1)}}{\sqrt{A+C}} = 0.27869$$

$$R_1 - \frac{\sqrt{A+C}}{\sqrt{B \cdot \sqrt{(A-1)+C} + (A+C) \cdot (D-1)}} = 0.00000$$

$$R_2 - \frac{\sqrt{B \cdot \sqrt{(A-1)+C} + (A+C) \cdot (D-1)}}{\sqrt{A+C}} = 0.00000$$

$$\frac{\sqrt{A+C}}{\sqrt{B \cdot \sqrt{(A-1)+C} + (A+C) \cdot (D-1)}} - \frac{N_2 \cdot N_4 \cdot \sqrt{N_1+N_3}}{\sqrt{N_2 \cdot N_4 \cdot \left(\left(N_1 \cdot N_2 + N_2 \cdot N_3 + N_4 \cdot \sqrt{N_1 \cdot N_3 \cdot \left(\left(N_1+N_3\right) - N_1 \cdot N_3\right)}\right) - N_2 \cdot N_4 \cdot \left(N_1+N_3\right)\right)}} = 0.00000$$



$$R_1 - \frac{N_2 \cdot N_4 \cdot \sqrt{N_1+N_3}}{\sqrt{N_2 \cdot N_4 \cdot ((N_1 \cdot N_2 + N_2 \cdot N_3 + N_4 \cdot \sqrt{N_1 \cdot N_3} \cdot ((N_1+N_3)-N_1 \cdot N_3)) - N_2 \cdot N_4 \cdot (N_1+N_3))}} = 0.00000$$

$$R_1 - \frac{\sqrt{A+C}}{\sqrt{B \cdot \sqrt{(A-1)+C+(A+C) \cdot (D-1)}}} = 0.00000$$

$$\frac{\sqrt{A+C}}{\sqrt{B \cdot \sqrt{(A-1)+C+(A+C) \cdot (D-1)}}} - \frac{N_2 \cdot N_4 \cdot \sqrt{N_1+N_3}}{\sqrt{N_2 \cdot N_4 \cdot ((N_1 \cdot N_2 + N_2 \cdot N_3 + N_4 \cdot \sqrt{N_1 \cdot N_3} \cdot ((N_1+N_3)-N_1 \cdot N_3)) - N_2 \cdot N_4 \cdot (N_1+N_3))}} = 0.00000$$

A = 0.79085
B = 0.64368
C = 0.47851
D = 0.88578

Unit = 1.00000
N_1 = 1.26447
N_2 = 1.55356
N_3 = 2.08981
N_4 = 1.12894

R_1 = 2.59094

$$\frac{N_2 \cdot N_4 \cdot \sqrt{N_1+N_3}}{\sqrt{N_2 \cdot N_4 \cdot ((N_1 \cdot N_2 + N_2 \cdot N_3 + N_4 \cdot \sqrt{N_1 \cdot N_3} \cdot ((N_1+N_3)-N_1 \cdot N_3)) - N_2 \cdot N_4 \cdot (N_1+N_3))}} = 2.59094$$

$$\frac{\sqrt{A+C}}{\sqrt{B \cdot \sqrt{(A-1)+C+(A+C) \cdot (D-1)}}} = 2.59094$$

R_2 = 0.38596

$$\frac{\sqrt{B \cdot \sqrt{(A-1)+C+(A+C) \cdot (D-1)}}}{\sqrt{A+C}} = 0.38596$$

$$R_2 - \frac{\sqrt{B \cdot \sqrt{(A-1)+C+(A+C) \cdot (D-1)}}}{\sqrt{A+C}} = 0.00000$$

3OBT6R4

Given.

Unit. $ab := 1$ $N_1 := 1.36371$

$N_2 := 2.00619$ $N_3 := 2.34980$

$A := \frac{1}{N_1}$ $B := \frac{1}{N_2}$ $C := \frac{1}{N_3}$

Descriptions.

$bf := \frac{N_1 \cdot N_3}{N_1 + N_3}$ $df := \sqrt{bf \cdot (1 - bf)}$ $R_1 := \frac{N_2}{df}$

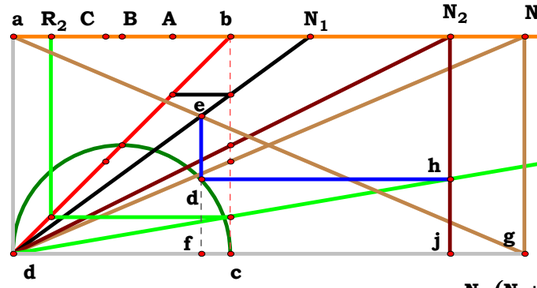
$R_2 := \frac{1}{R_1}$ $R_1 = 5.833026$

Definitions.

$$R_1 - \frac{N_2 \cdot (N_1 + N_3)}{\sqrt{N_1 \cdot N_3 \cdot (N_1 + N_3 - N_1 \cdot N_3)}} = 0$$

$N_1 - \frac{1}{A} = 0$ $N_2 - \frac{1}{B} = 0$ $N_3 - \frac{1}{C} = 0$

$R_1 - \frac{(A + C)}{B \cdot \sqrt{(A + C - 1)}} = 0$ $R_2 - \frac{B \cdot \sqrt{A + C - 1}}{A + C} = 0$



Unit = 1.00000

A = 0.73330 N_1 = 1.36371

B = 0.49846 N_2 = 2.00619

C = 0.42557 N_3 = 2.34980

$R_1 = 5.83301$

$\frac{N_2 \cdot (N_1 + N_3)}{\sqrt{N_1 \cdot N_3 \cdot ((N_1 + N_3) - N_1 \cdot N_3)}} = 5.83301$

$\frac{(A+C)}{(B \cdot \sqrt{(A+C)-1})} = 5.83301$

$R_1 - \frac{N_2 \cdot (N_1 + N_3)}{\sqrt{N_1 \cdot N_3 \cdot ((N_1 + N_3) - N_1 \cdot N_3)}} = 0.00000$

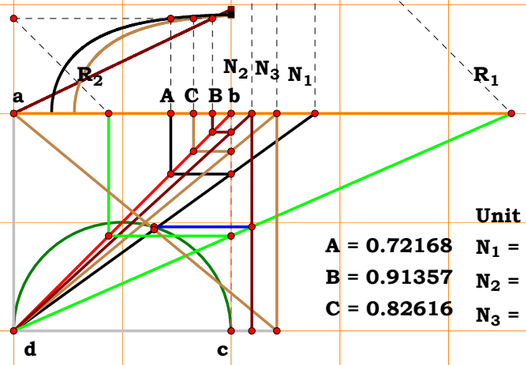
$R_1 - \frac{(A+C)}{(B \cdot \sqrt{(A+C)-1})} = 0.00000$

$\frac{(A+C)}{(B \cdot \sqrt{(A+C)-1})} - \frac{N_2 \cdot (N_1 + N_3)}{\sqrt{N_1 \cdot N_3 \cdot ((N_1 + N_3) - N_1 \cdot N_3)}} = 0.00000$

$R_2 = 0.17144$

$\frac{(B \cdot \sqrt{(A+C)-1})}{(A+C)} = 0.17144$

$R_2 - \frac{(B \cdot \sqrt{(A+C)-1})}{(A+C)} = 0.00000$



Unit = 1.00000
A = 0.72168
B = 0.91357
C = 0.82616
$N_1 = 1.38565$
$N_2 = 1.09461$
$N_3 = 1.21042$

$R_1 = 2.28907$

$$\frac{N_2\cdot(N_1+N_3)}{\sqrt{N_1\cdot N_3\cdot((N_1+N_3)-N_1\cdot N_3)}} = 2.28907$$

$$\frac{(A+C)}{(B\cdot\sqrt{(A+C)-1})} = 2.28907$$

$$R_1-\frac{N_2\cdot(N_1+N_3)}{\sqrt{N_1\cdot N_3\cdot((N_1+N_3)-N_1\cdot N_3)}} = 0.00000$$

$$R_1-\frac{(A+C)}{(B\cdot\sqrt{(A+C)-1})} = 0.00000$$

$$\frac{(A+C)}{(B\cdot\sqrt{(A+C)-1})}-\frac{N_2\cdot(N_1+N_3)}{\sqrt{N_1\cdot N_3\cdot((N_1+N_3)-N_1\cdot N_3)}} = 0.00000$$

$R_2 = 0.43686$

$$\frac{(B\cdot\sqrt{(A+C)-1})}{(A+C)} = 0.43686$$

$$R_2-\frac{(B\cdot\sqrt{(A+C)-1})}{(A+C)} = 0.00000$$

3OBT6R5

Given.

Unit. $ab := 1$ $N_1 := 1.14244$

$N_2 := 1.43140$ $N_3 := 2.58340$

$A := \frac{1}{N_1}$ $B := \frac{1}{N_2}$ $C := \frac{1}{N_3}$

Descriptions.

$bf := \frac{N_1 \cdot N_3}{N_1 + N_3}$ $ef := \sqrt{bf \cdot (1 - bf)}$

$bk := \sqrt{N_2^2 + ef^2}$ $bg := \frac{N_2}{bk}$

$gj := \frac{ef \cdot bg}{bk}$ $R_1 := \frac{N_2}{gj}$

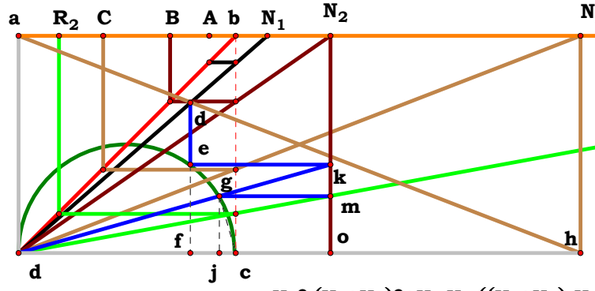
$R_2 := \frac{1}{R_1}$ $R_1 = 5.455111$

Definitions.

$$R_1 - \frac{N_2^2 \cdot (N_1 + N_3)^2 + N_1 \cdot N_3 \cdot (N_1 + N_3 - N_1 \cdot N_3)}{(N_1 + N_3) \cdot \sqrt{N_1 \cdot N_3 \cdot (N_1 + N_3 - N_1 \cdot N_3)}} = 0$$

$N_1 - \frac{1}{A} = 0$ $N_2 - \frac{1}{B} = 0$ $N_3 - \frac{1}{C} = 0$

$$R_1 - \frac{(A - B + C) \cdot (A + B + C) + B^2 \cdot (A + C)}{B^2 \cdot (A + C) \cdot \sqrt{(A + C - 1)}} = 0 \qquad R_2 - \frac{B^2 \cdot (A + C) \cdot \sqrt{(A + C - 1)}}{(A - B + C) \cdot (A + B + C) + B^2 \cdot (A + C)} = 0$$



Unit = 1.00000

A = 0.87532 N_1 = 1.14244

B = 0.69862 N_2 = 1.43140

C = 0.38709 N_3 = 2.58340

$R_1 = 5.45509$

$$\frac{N_2^2 \cdot (N_1+N_3)^2+N_1 \cdot N_3 \cdot ((N_1+N_3)-N_1 \cdot N_3)}{(N_1+N_3) \cdot \sqrt{N_1 \cdot N_3 \cdot ((N_1+N_3)-N_1 \cdot N_3)}} = 5.45509$$

$$\frac{(((A-B)+C) \cdot (A+B+C)+B^2 \cdot (A+C))}{(B^2 \cdot (A+C) \cdot \sqrt{(A+C)-1})} = 5.45509$$

$$R_1 - \frac{N_2^2 \cdot (N_1+N_3)^2+N_1 \cdot N_3 \cdot ((N_1+N_3)-N_1 \cdot N_3)}{(N_1+N_3) \cdot \sqrt{N_1 \cdot N_3 \cdot ((N_1+N_3)-N_1 \cdot N_3)}} = 0.00000$$

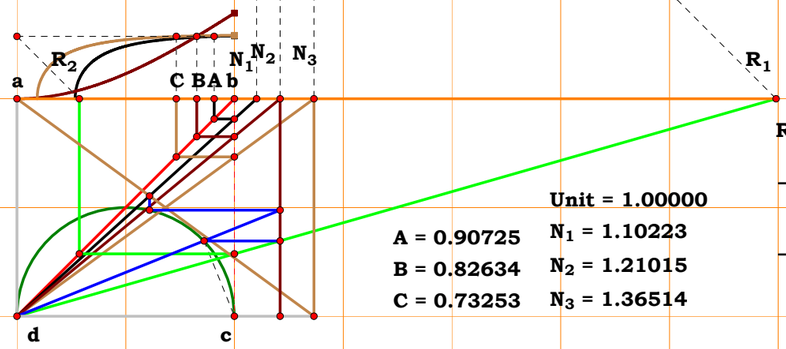
$$R_1 - \frac{(((A-B)+C) \cdot (A+B+C)+B^2 \cdot (A+C))}{(B^2 \cdot (A+C) \cdot \sqrt{(A+C)-1})} = 0.00000$$

$$\frac{(((A-B)+C) \cdot (A+B+C)+B^2 \cdot (A+C))}{(B^2 \cdot (A+C) \cdot \sqrt{(A+C)-1})} - \frac{N_2^2 \cdot (N_1+N_3)^2+N_1 \cdot N_3 \cdot ((N_1+N_3)-N_1 \cdot N_3)}{(N_1+N_3) \cdot \sqrt{N_1 \cdot N_3 \cdot ((N_1+N_3)-N_1 \cdot N_3)}} = 0.00000$$

$R_2 = 0.18331$

$$\frac{(B^2 \cdot (A+C) \cdot \sqrt{(A+C)-1})}{(((A-B)+C) \cdot (A+B+C)+B^2 \cdot (A+C))} = 0.18331$$

$$R_2 - \frac{(B^2 \cdot (A+C) \cdot \sqrt{(A+C)-1})}{(((A-B)+C) \cdot (A+B+C)+B^2 \cdot (A+C))} = 0.00000$$



Unit = 1.00000

A = 0.90725 N_1 = 1.10223

B = 0.82634 N_2 = 1.21015

C = 0.73253 N_3 = 1.36514

R_2 = 0.28653

$$\frac{(B^2\cdot(A+C)\cdot\sqrt{(A+C)-1})}{(((A-B)+C)\cdot(A+B+C)+B^2\cdot(A+C))} = 0.28653$$

$$R_2 - \frac{(B^2\cdot(A+C)\cdot\sqrt{(A+C)-1})}{(((A-B)+C)\cdot(A+B+C)+B^2\cdot(A+C))} = 0.00000$$

R_1 = 3.49006

$$\frac{N_2{}^2\cdot(N_1+N_3)^2+N_1\cdot N_3\cdot((N_1+N_3)-N_1\cdot N_3)}{(N_1+N_3)\cdot\sqrt{N_1\cdot N_3\cdot((N_1+N_3)-N_1\cdot N_3)}} = 3.49006$$

$$\frac{(((A-B)+C)\cdot(A+B+C)+B^2\cdot(A+C))}{(B^2\cdot(A+C)\cdot\sqrt{(A+C)-1})} = 3.49006$$

$$R_1 - \frac{N_2{}^2\cdot(N_1+N_3)^2+N_1\cdot N_3\cdot((N_1+N_3)-N_1\cdot N_3)}{(N_1+N_3)\cdot\sqrt{N_1\cdot N_3\cdot((N_1+N_3)-N_1\cdot N_3)}} = 0.00000$$

$$R_1 - \frac{(((A-B)+C)\cdot(A+B+C)+B^2\cdot(A+C))}{(B^2\cdot(A+C)\cdot\sqrt{(A+C)-1})} = 0.00000$$

$$\frac{(((A-B)+C)\cdot(A+B+C)+B^2\cdot(A+C))}{(B^2\cdot(A+C)\cdot\sqrt{(A+C)-1})} - \frac{N_2{}^2\cdot(N_1+N_3)^2+N_1\cdot N_3\cdot((N_1+N_3)-N_1\cdot N_3)}{(N_1+N_3)\cdot\sqrt{N_1\cdot N_3\cdot((N_1+N_3)-N_1\cdot N_3)}} = 0.00000$$

3OBT6R6

Given.

Unit. $ab := 1$ $N_1 := 1.50385$

$N_2 := 1.23868$ $N_3 := 2.23655$

$A := \frac{1}{N_1}$ $B := \frac{1}{N_2}$ $C := \frac{1}{N_3}$

Descriptions.

$bf := \frac{N_1 \cdot N_3}{N_1 + N_3}$ $ef := \sqrt{bf \cdot (1 - bf)}$

$ap := \frac{N_2}{ef}$ $bh := \frac{ap \cdot N_3}{ap + N_3}$

$gh := \frac{bh}{ap}$ $R_1 := \frac{N_2}{gh}$

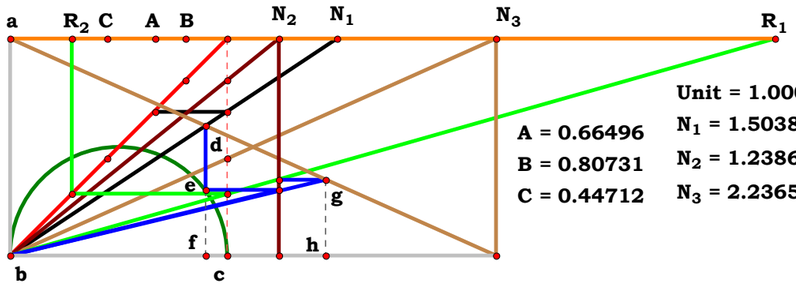
$R_2 := \frac{1}{R_1}$ $R_1 = 3.517531$

Definitions.

$$R_1 - \frac{N_2 \cdot \left[N_1 \cdot N_2 + N_2 \cdot N_3 + N_3 \cdot \sqrt{N_1 \cdot N_3 \cdot \left(N_1 + N_3 - N_1 \cdot N_3\right)}\right]}{N_3 \cdot \sqrt{N_1 \cdot N_3 \cdot \left(N_1 + N_3 - N_1 \cdot N_3\right)}} = 0$$

$N_1 - \frac{1}{A} = 0$ $N_2 - \frac{1}{B} = 0$ $N_3 - \frac{1}{C} = 0$

$$R_1 - \frac{B \cdot \sqrt{(A + C - 1)} + C^2 + A \cdot C}{B^2 \cdot \sqrt{(A + C - 1)}} = 0 \qquad R_2 - \frac{B^2 \cdot \sqrt{(A + C - 1)}}{B \cdot \sqrt{(A + C - 1)} + C^2 + A \cdot C} = 0$$



$A = 0.66496$
$B = 0.80731$
$C = 0.44712$

$Unit = 1.00000$
$N_1 = 1.50385$
$N_2 = 1.23868$
$N_3 = 2.23655$

$$R_1 - \frac{N_2 \cdot \left(N_1 \cdot N_2 + N_2 \cdot N_3 + N_3 \cdot \sqrt{N_1 \cdot N_3 \cdot \left((N_1 + N_3) - N_1 \cdot N_3\right)}\right)}{N_3 \cdot \sqrt{N_1 \cdot N_3 \cdot \left((N_1 + N_3) - N_1 \cdot N_3\right)}} = 0.00000$$

$$R_1 - \frac{\left(A \cdot C + C^2 + B \cdot \sqrt{(A + C) - 1}\right)}{\left(B^2 \cdot \sqrt{(A + C) - 1}\right)} = 0.00000$$

$$\frac{\left(A \cdot C + C^2 + B \cdot \sqrt{(A + C) - 1}\right)}{\left(B^2 \cdot \sqrt{(A + C) - 1}\right)} - \frac{N_2 \cdot \left(N_1 \cdot N_2 + N_2 \cdot N_3 + N_3 \cdot \sqrt{N_1 \cdot N_3 \cdot \left((N_1 + N_3) - N_1 \cdot N_3\right)}\right)}{N_3 \cdot \sqrt{N_1 \cdot N_3 \cdot \left((N_1 + N_3) - N_1 \cdot N_3\right)}} = 0.00000$$

$R_1 = 3.51755$

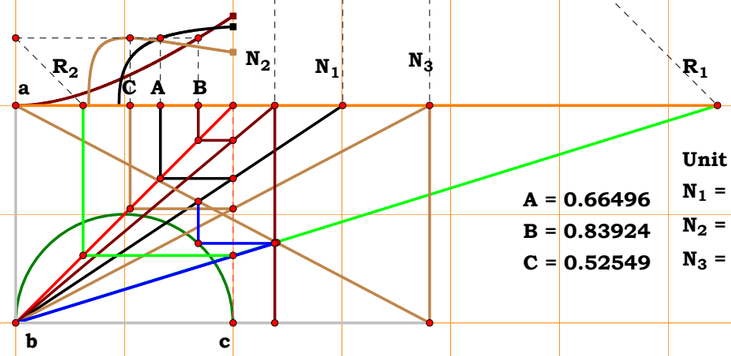
$$\frac{N_2 \cdot \left(N_1 \cdot N_2 + N_2 \cdot N_3 + N_3 \cdot \sqrt{N_1 \cdot N_3 \cdot \left((N_1 + N_3) - N_1 \cdot N_3\right)}\right)}{N_3 \cdot \sqrt{N_1 \cdot N_3 \cdot \left((N_1 + N_3) - N_1 \cdot N_3\right)}} = 3.51755$$

$$\frac{\left(A \cdot C + C^2 + B \cdot \sqrt{(A + C) - 1}\right)}{\left(B^2 \cdot \sqrt{(A + C) - 1}\right)} = 3.51755$$

$R_2 = 0.28429$

$$\frac{\left(B^2 \cdot \sqrt{(A + C) - 1}\right)}{\left(A \cdot C + C^2 + B \cdot \sqrt{(A + C) - 1}\right)} = 0.28429$$

$$R_2 - \frac{\left(B^2 \cdot \sqrt{(A + C) - 1}\right)}{\left(A \cdot C + C^2 + B \cdot \sqrt{(A + C) - 1}\right)} = 0.00000$$



$R_2 = 0.30991$

$$\frac{(B^2\cdot\sqrt{(A+C)-1})}{(A\cdot C+C^2+B\cdot\sqrt{(A+C)-1})} = 0.30991$$

$$R_2-\frac{(B^2\cdot\sqrt{(A+C)-1})}{(A\cdot C+C^2+B\cdot\sqrt{(A+C)-1})} = 0.00000$$

$A = 0.66496$

$B = 0.83924$

$C = 0.52549$

$Unit = 1.00000$

$N_1 = 1.50385$

$N_2 = 1.19155$

$N_3 = 1.90297$

$R_1 = 3.22678$

$$\frac{N_2\cdot(N_1\cdot N_2+N_2\cdot N_3+N_3\cdot\sqrt{N_1\cdot N_3\cdot((N_1+N_3)-N_1\cdot N_3)})}{N_3\cdot\sqrt{N_1\cdot N_3\cdot((N_1+N_3)-N_1\cdot N_3)}} = 3.22678$$

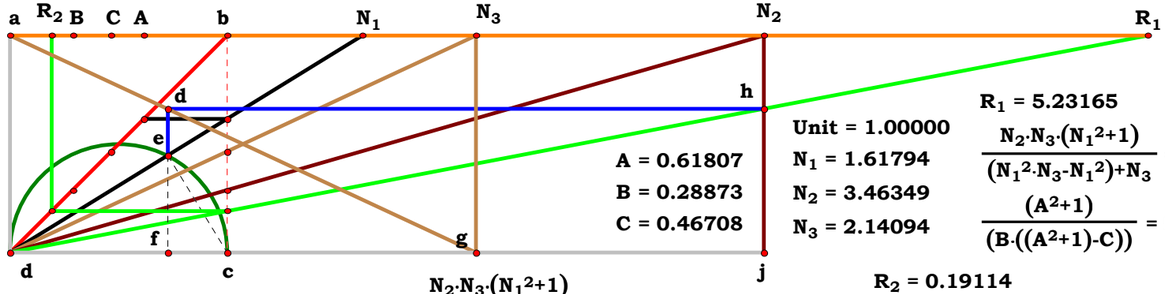
$$\frac{(A\cdot C+C^2+B\cdot\sqrt{(A+C)-1})}{(B^2\cdot\sqrt{(A+C)-1})} = 3.22678$$

$$R_1-\frac{N_2\cdot(N_1\cdot N_2+N_2\cdot N_3+N_3\cdot\sqrt{N_1\cdot N_3\cdot((N_1+N_3)-N_1\cdot N_3)})}{N_3\cdot\sqrt{N_1\cdot N_3\cdot((N_1+N_3)-N_1\cdot N_3)}} = 0.00000$$

$$R_1-\frac{(A\cdot C+C^2+B\cdot\sqrt{(A+C)-1})}{(B^2\cdot\sqrt{(A+C)-1})} = 0.00000$$

$$\frac{(A\cdot C+C^2+B\cdot\sqrt{(A+C)-1})}{(B^2\cdot\sqrt{(A+C)-1})}-\frac{N_2\cdot(N_1\cdot N_2+N_2\cdot N_3+N_3\cdot\sqrt{N_1\cdot N_3\cdot((N_1+N_3)-N_1\cdot N_3)})}{N_3\cdot\sqrt{N_1\cdot N_3\cdot((N_1+N_3)-N_1\cdot N_3)}} = 0.00000$$

3OBT6R7



Unit = 1.00000
N1 = 1.61794
N2 = 3.46349
N3 = 2.14094

A = 0.61807
B = 0.28873
C = 0.46708

$R_1 = 5.23165$

$\frac{N_2 \cdot N_3 \cdot (N_1^2+1)}{(N_1^2 \cdot N_3 - N_1^2)+N_3} = 5.23165$

$\frac{(A^2+1)}{(B \cdot ((A^2+1)-C))} = 5.23165$

$R_1 - \frac{N_2 \cdot N_3 \cdot (N_1^2+1)}{(N_1^2 \cdot N_3 - N_1^2)+N_3} = 0.00000$

$R_1 - \frac{(A^2+1)}{(B \cdot ((A^2+1)-C))} = 0.00000$

$\frac{(A^2+1)}{(B \cdot ((A^2+1)-C))} - \frac{N_2 \cdot N_3 \cdot (N_1^2+1)}{(N_1^2 \cdot N_3 - N_1^2)+N_3} = 0.00000$

$R_2 = 0.19114$

$\frac{(B \cdot ((A^2+1)-C))}{(A^2+1)} = 0.19114$

$R_2 - \frac{(B \cdot ((A^2+1)-C))}{(A^2+1)} = 0.00000$

Given.

Unit. $ab := 1$ $N_1 := 1.61794$

$N_2 := 3.46349$ $N_3 := 2.14094$

$A := \frac{1}{N_1}$ $B := \frac{1}{N_2}$ $C := \frac{1}{N_3}$

Descriptions.

$bN_1 := \sqrt{1 + N_1^2}$ $be := \frac{N_1}{bN_1}$ $bf := \frac{N_1 \cdot be}{bN_1}$

$df := \frac{(N_3 - bf)}{N_3}$ $R_1 := \frac{N_2}{df}$

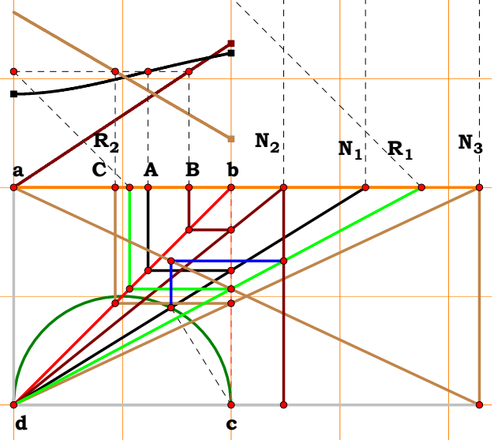
$R_2 := \frac{1}{R_1}$ $R_1 = 5.231658$

Definitions.

$R_1 - \frac{N_2 \cdot N_3 \cdot (N_1^2 + 1)}{N_1^2 \cdot N_3 - N_1^2 + N_3} = 0$

$N_1 - \frac{1}{A} = 0$ $N_2 - \frac{1}{B} = 0$ $N_3 - \frac{1}{C} = 0$

$R_1 - \frac{A^2 + 1}{B \cdot (A^2 + 1 - C)} = 0$ $R_2 - \frac{B \cdot (A^2 + 1 - C)}{A^2 + 1} = 0$



A = 0.61807
B = 0.80544
C = 0.46708

Unit = 1.00000
N_1 = 1.61794
N_2 = 1.24157
N_3 = 2.14094

R_1 = 1.87540

$$\frac{N_2 \cdot N_3 \cdot (N_1^2+1)}{(N_1^2 \cdot N_3 - N_1^2)+N_3} = 1.87540$$

$$\frac{(A^2+1)}{(B \cdot ((A^2+1)-C))} = 1.87540$$

$$R_1 - \frac{N_2 \cdot N_3 \cdot (N_1^2+1)}{(N_1^2 \cdot N_3 - N_1^2)+N_3} = 0.00000$$

$$R_1 - \frac{(A^2+1)}{(B \cdot ((A^2+1)-C))} = 0.00000$$

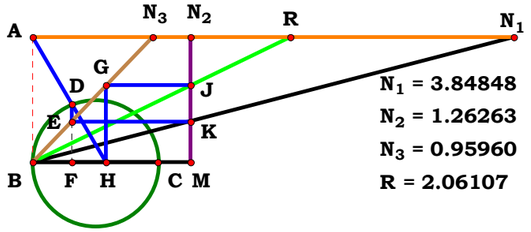
$$\frac{(A^2+1)}{(B \cdot ((A^2+1)-C))} - \frac{N_2 \cdot N_3 \cdot (N_1^2+1)}{(N_1^2 \cdot N_3 - N_1^2)+N_3} = 0.00000$$

R_2 = 0.53322

$$\frac{(B \cdot ((A^2+1)-C))}{(A^2+1)} = 0.53322$$

$$R_2 - \frac{(B \cdot ((A^2+1)-C))}{(A^2+1)} = 0.00000$$

3OBT7R0



Unit. $AB := 1$ **Given.** $N_1 := 3.84848$ $N_2 := 1.26263$ $N_3 := .95960$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

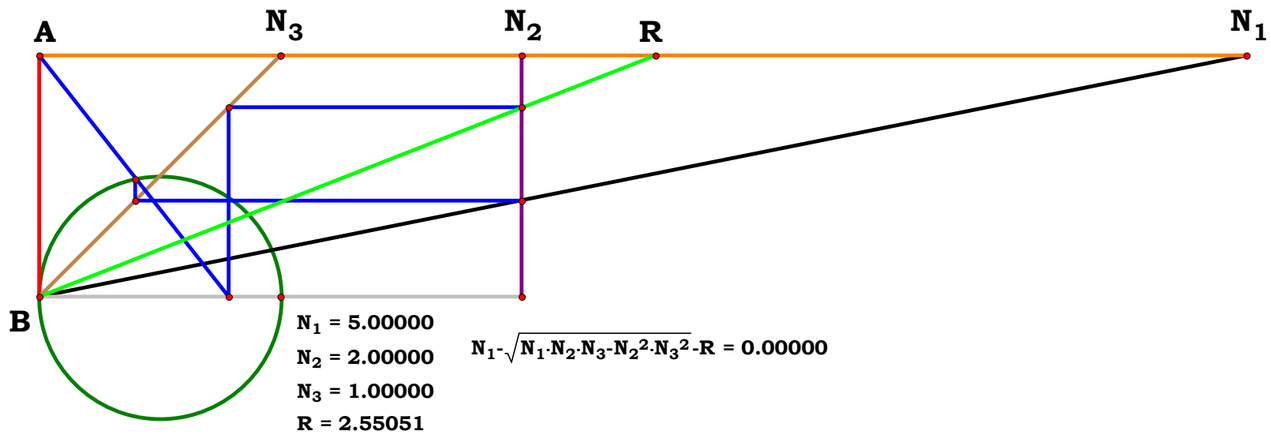
$KM := \frac{N_2}{N_1}$ $BF := N_3 \cdot KM$

$DF := \sqrt{BF \cdot (AB - BF)}$ $BH := \frac{BF \cdot AB}{AB - DF}$

$GH := \frac{AB \cdot BH}{N_3}$ $R := \frac{N_2 \cdot AB}{GH}$

$R = 2.06106$

$Boolean := \frac{DF^2 + \sqrt{DF^4}}{2\sqrt{DF^4}}$



Definitions.

Boolean $= 1$

$R - \left(N_1 - \sqrt{N_1 \cdot N_2 \cdot N_3 - N_2^2 \cdot N_3^2}\right) = 0$

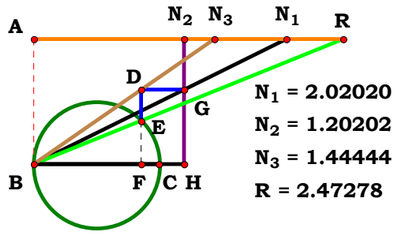
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$

$R - \frac{N_u \cdot \left[B \cdot C - \sqrt{N_u \cdot A \cdot (B \cdot C - A \cdot N_u)}\right]}{A \cdot B \cdot C} = 0$

$N_1 - \frac{X}{o} = 0$ $N_2 - \frac{Y}{p} = 0$ $N_3 - \frac{Z}{q} = 0$

$R - \frac{X \cdot p \cdot q - \sqrt{o} \cdot \sqrt{Y \cdot Z \cdot (X \cdot p \cdot q - Y \cdot Z \cdot o)}}{o \cdot p \cdot q} = 0$

3OBT7R1



Unit. $AB := 1$ **Given.** $N_1 := 2.02020$ $N_2 := 1.20202$ $N_3 := 1.44444$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

$GH := \frac{N_2}{N_1}$ $BF := N_3 \cdot GH$

$EF := \sqrt{BF \cdot (AB - BF)}$ $R := \frac{BF \cdot AB}{EF}$

$R = 2.472757$

Definitions.

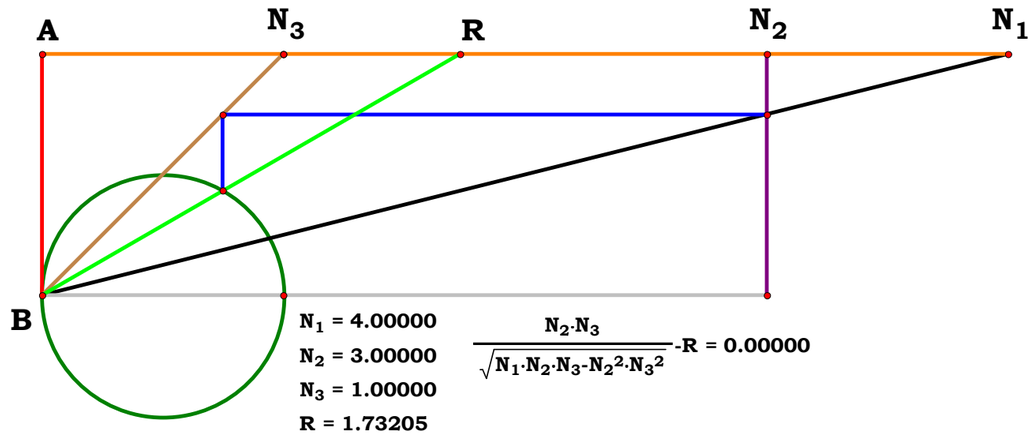
$$R - \frac{N_2 \cdot N_3}{\sqrt{N_1 \cdot N_2 \cdot N_3 - N_2^2 \cdot N_3^2}} = 0$$

$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$

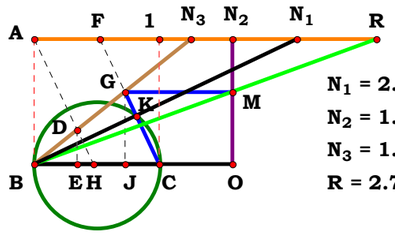
$$R - \frac{\sqrt{A} \cdot N_u}{\sqrt{N_u \cdot (B \cdot C - A \cdot N_u)}} = 0$$

$N_1 - \frac{X}{o} = 0$ $N_2 - \frac{Y}{p} = 0$ $N_3 - \frac{Z}{q} = 0$

$$R - \frac{Y \cdot Z \cdot \sqrt{o}}{\sqrt{-Y \cdot Z \cdot (Y \cdot Z \cdot o - X \cdot p \cdot q)}} = 0$$



3OBT7R2



$N_1 = 2.10101$
$N_2 = 1.58586$
$N_3 = 1.25253$
$R = 2.74114$

Unit. $AB := 1$ **Given.** $N_1 := 2.10101$ $N_2 := 1.58586$ $N_3 := 1.25253$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

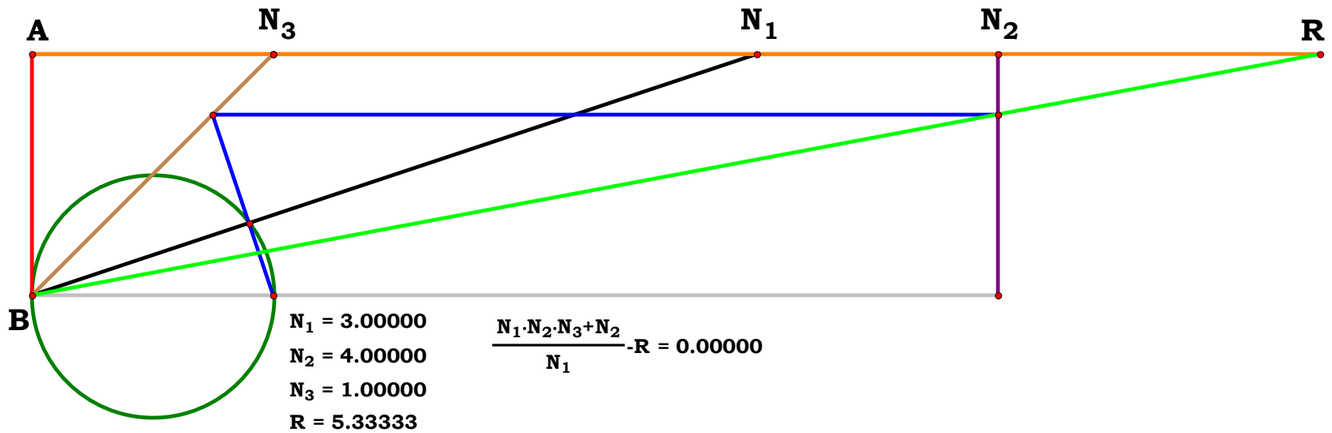
Descriptions.

$F1 := \frac{AB^2}{N_1}$ $BH := F1$

$BE := \frac{N_3 \cdot BH}{N_3 + BH}$ $BJ := \frac{BE \cdot AB}{BH}$

$GJ := \frac{AB \cdot BJ}{N_3}$ $R := \frac{N_2 \cdot AB}{GJ}$

$R = 2.741146$



$N_1 = 3.00000$
$N_2 = 4.00000$
$N_3 = 1.00000$
$R = 5.33333$

$\frac{N_1 \cdot N_2 \cdot N_3 + N_2}{N_1} - R = 0.00000$

Definitions.

$R - \frac{N_1 \cdot N_2 \cdot N_3 + N_2}{N_1} = 0$

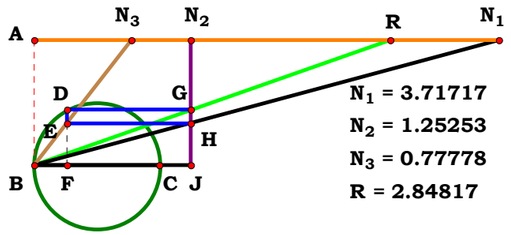
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$

$R - \frac{N_u^2 + A \cdot C}{B \cdot C} = 0$

$N_1 - \frac{X}{o} = 0$ $N_2 - \frac{Y}{p} = 0$ $N_3 - \frac{Z}{q} = 0$

$R - \frac{Y \cdot o \cdot q + X \cdot Y \cdot Z}{X \cdot p \cdot q} = 0$

3OBT7R3



Unit. $AB := 1$ **Given.** $N_1 := 3.71717$ $N_2 := 1.25253$ $N_3 := .77778$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

$HJ := \frac{N_2}{N_1}$ $BF := N_3 \cdot HJ$

$DF := \sqrt{BF \cdot (AB - BF)}$ $R := \frac{N_2 \cdot AB}{DF}$

$R = 2.848177$

$Boolean := \frac{DF^2 + \sqrt{DF^4}}{2\sqrt{DF^4}}$

Definitions.

$Boolean = 1$

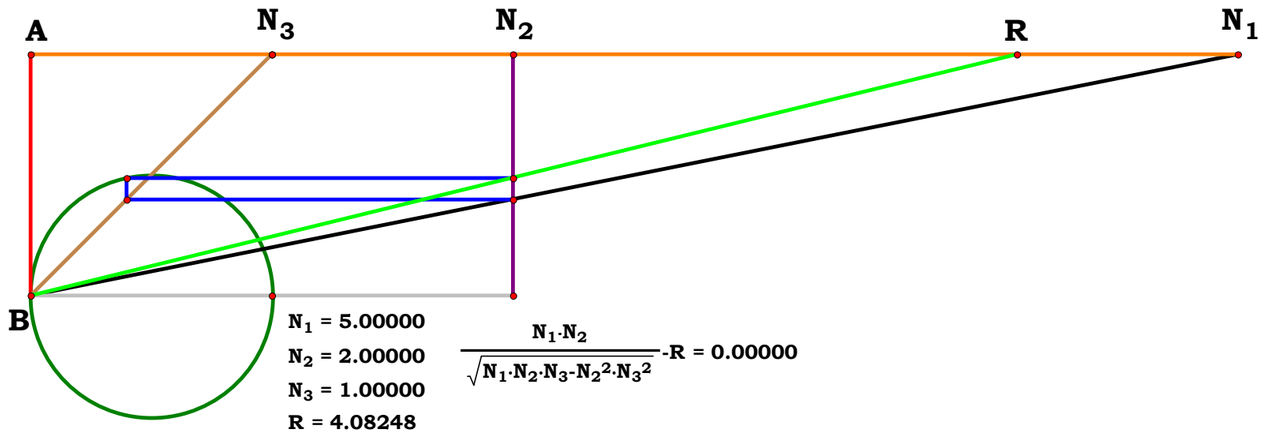
$$R - \frac{N_1 \cdot N_2}{\sqrt{N_1 \cdot N_2 \cdot N_3 - N_2^2 \cdot N_3^2}} = 0$$

$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$

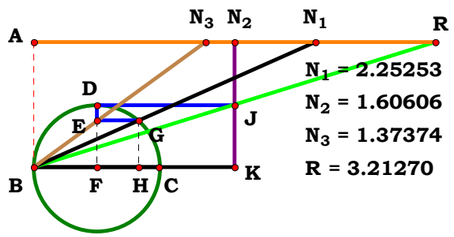
$$R - \frac{C \cdot N_u}{\sqrt{A \cdot N_u \cdot (B \cdot C - A \cdot N_u)}} = 0$$

$N_1 - \frac{X}{o} = 0$ $N_2 - \frac{Y}{p} = 0$ $N_3 - \frac{Z}{q} = 0$

$$R - \frac{X \cdot Y \cdot q}{\sqrt{o} \cdot \sqrt{-Y \cdot Z \cdot (Y \cdot Z \cdot o - X \cdot p \cdot q)}} = 0$$



3OBT7R4



Unit. $AB := 1$ Given. $N_1 := 2.25253$ $N_2 := 1.60606$ $N_3 := 1.37374$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

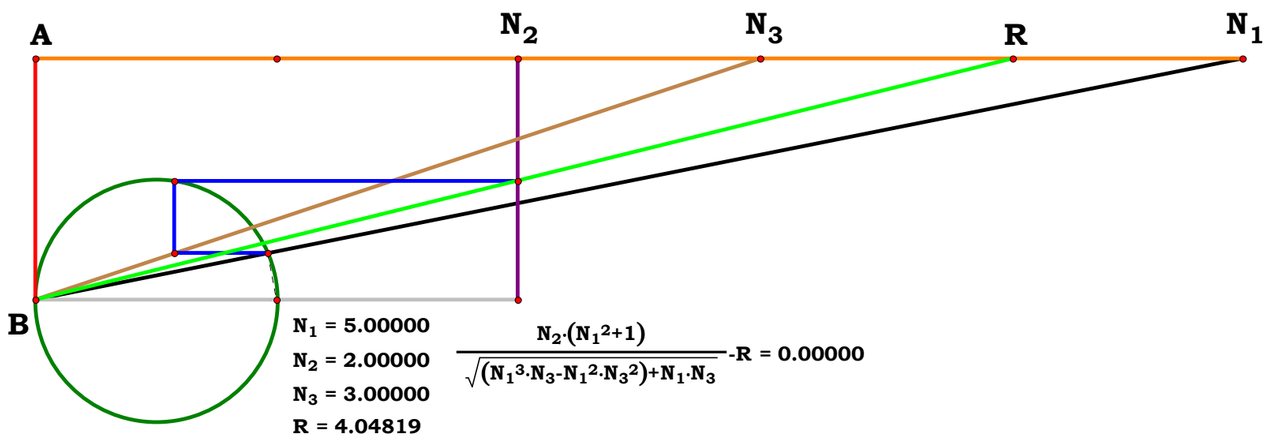
Descriptions.

$BN_1 := \sqrt{AB^2 + N_1^2}$ $BG := \frac{N_1 \cdot AB}{BN_1}$

$GH := \frac{AB \cdot BG}{BN_1}$ $BF := N_3 \cdot GH$

$DF := \sqrt{BF \cdot (AB - BF)}$ $R := \frac{N_2 \cdot AB}{DF}$

$R = 3.212695$



Definitions.

$$R - \frac{N_2 \cdot \left(N_1^2 + 1\right)}{\sqrt{N_1^3 \cdot N_3 - N_1^2 \cdot N_3^2 + N_1 \cdot N_3}} = 0$$

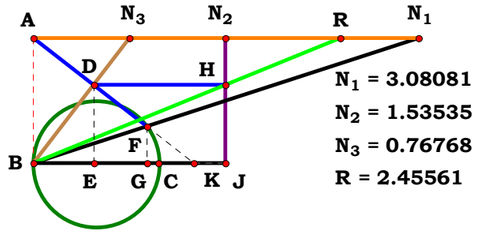
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$

$$R - \frac{C \cdot \left(A^2 + N_u^2\right)}{B \cdot \sqrt{A \cdot \left(C \cdot A^2 - A \cdot N_u^2 + C \cdot N_u^2\right)}} = 0$$

$N_1 - \frac{X}{o} = 0$ $N_2 - \frac{Y}{p} = 0$ $N_3 - \frac{Z}{q} = 0$

$$R - \frac{Y \cdot q \cdot \left(X^2 + o^2\right)}{\sqrt{o} \cdot p \cdot \sqrt{X \cdot Z \cdot \left(q \cdot X^2 - Z \cdot X \cdot o + q \cdot o^2\right)}} = 0$$

3OBT7R5



$N_1 = 3.08081$
$N_2 = 1.53535$
$N_3 = 0.76768$
$R = 2.45561$

Unit. $AB := 1$ **Given.** $N_1 := 3.08081$ $N_2 := 1.53535$ $N_3 := .76768$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

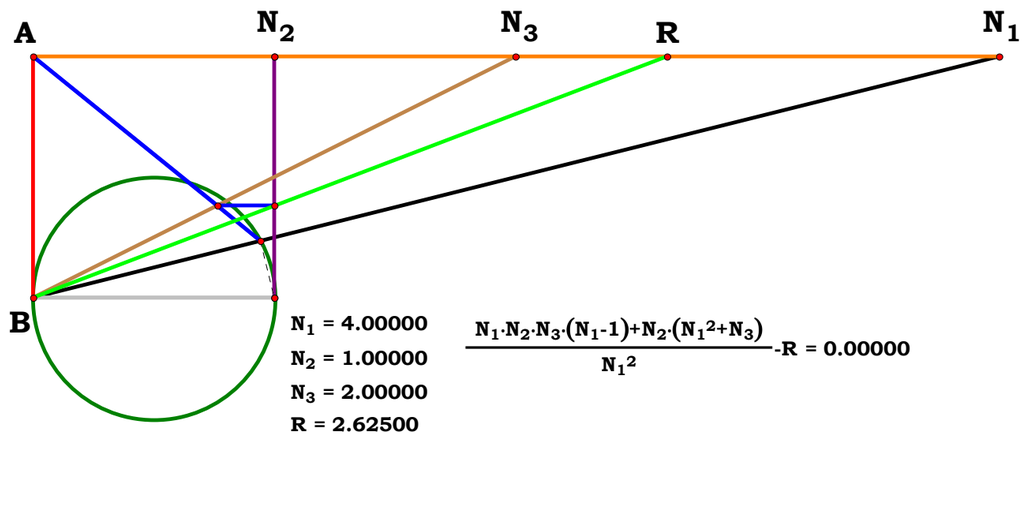
$BN_1 := \sqrt{AB^2 + N_1^2}$ $BF := \frac{N_1 \cdot AB}{BN_1}$

$BG := \frac{N_1 \cdot BF}{BN_1}$ $FG := \frac{BF}{BN_1}$

$BK := \frac{BG \cdot AB}{AB - FG}$ $BE := \frac{N_3 \cdot BK}{N_3 + BK}$

$DE := \frac{AB \cdot BE}{N_3}$ $R := \frac{N_2 \cdot AB}{DE}$

$R = 2.455609$



$N_1 = 4.00000$
$N_2 = 1.00000$
$N_3 = 2.00000$
$R = 2.62500$

$\frac{N_1 \cdot N_2 \cdot N_3 \cdot (N_1 - 1) + N_2 \cdot (N_1^2 + N_3)}{N_1^2} - R = 0.00000$

Definitions.

$R - \frac{N_1 \cdot N_2 \cdot N_3 \cdot (N_1 - 1) + N_2 \cdot (N_1^2 + N_3)}{N_1^2} = 0$

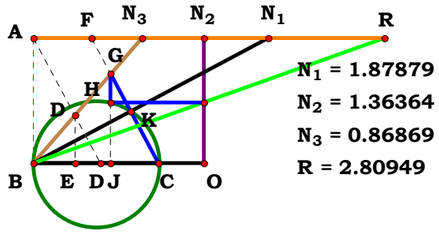
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$

$R - \frac{A^2 - A \cdot N_u + N_u^2 + C \cdot N_u}{B \cdot C} = 0$

$N_1 - \frac{X}{o} = 0$ $N_2 - \frac{Y}{p} = 0$ $N_3 - \frac{Z}{q} = 0$

$R - \frac{X^2 \cdot Y \cdot Z + Y \cdot Z \cdot o^2 + X^2 \cdot Y \cdot q - X \cdot Y \cdot Z \cdot o}{X^2 \cdot p \cdot q} = 0$

3OBT7R6



Unit. $AB := 1$ Given. $N_1 := 1.87879$ $N_2 := 1.36364$ $N_3 := .86869$

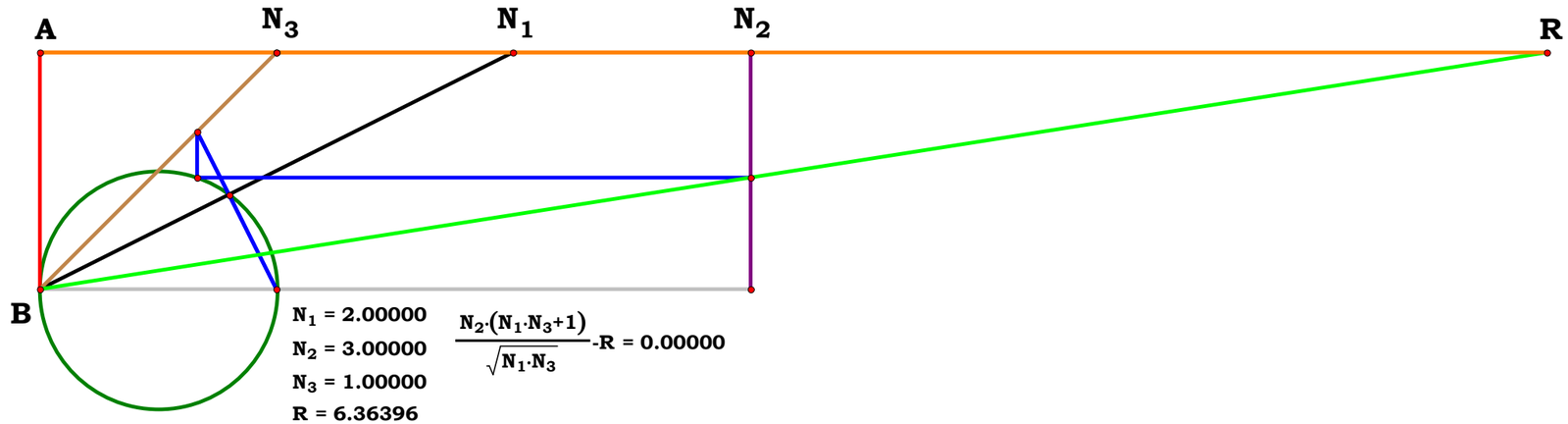
$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

$BD := \frac{AB^2}{N_1}$ $BE := \frac{N_3 \cdot BD}{N_3 + BD}$

$BJ := \frac{BE \cdot AB}{BD}$ $HJ := \sqrt{BJ \cdot (AB - BJ)}$

$R := \frac{N_2 \cdot AB}{HJ}$ $R = 2.809495$



Definitions.

$R - \frac{N_2 \cdot (N_1 \cdot N_3 + 1)}{\sqrt{N_1 \cdot N_3}} = 0$

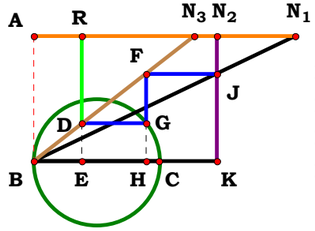
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$

$R - \frac{\sqrt{A \cdot C} \cdot (N_u^2 + A \cdot C)}{A \cdot B \cdot C} = 0$

$N_1 - \frac{X}{o} = 0$ $N_2 - \frac{Y}{p} = 0$ $N_3 - \frac{Z}{q} = 0$

$R - \frac{Y \cdot (X \cdot Z + o \cdot q) \cdot \sqrt{o \cdot q}}{o \cdot p \cdot q \cdot \sqrt{X \cdot Z}} = 0$

3OBT7R7



$N_1 = 2.09091$
$N_2 = 1.46465$
$N_3 = 1.28283$
$R = 0.38723$

Unit. $AB := 1$ Given. $N_1 := 2.09091$ $N_2 := 1.46465$ $N_3 := 1.28283$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

$JK := \frac{N_2}{N_1}$ $BH := N_3 \cdot JK$

$GH := \sqrt{BH \cdot (AB - BH)}$ $R := N_3 \cdot GH$

$R = 0.387228$

$Boolean := \frac{GH^2 + \sqrt{GH^4}}{2\sqrt{GH^4}}$

Definitions.

$Boolean = 1$

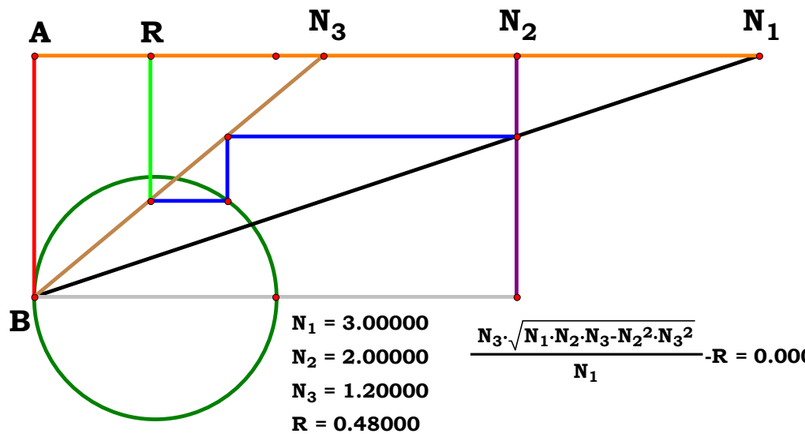
$R - \frac{N_3 \cdot \sqrt{N_1 \cdot N_2 \cdot N_3 - N_2^2 \cdot N_3^2}}{N_1} = 0$

$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$

$R - \frac{N_u \cdot \sqrt{A \cdot N_u \cdot (B \cdot C - A \cdot N_u)}}{B \cdot C^2} = 0$

$N_1 - \frac{X}{o} = 0$ $N_2 - \frac{Y}{p} = 0$ $N_3 - \frac{Z}{q} = 0$

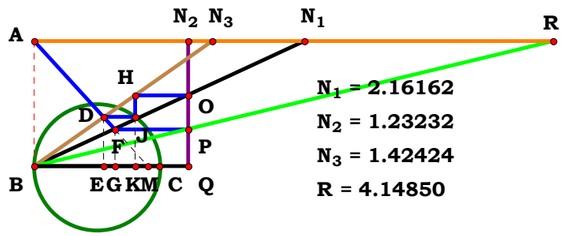
$R - \frac{Z \cdot \sqrt{o} \cdot \sqrt{-Y \cdot Z \cdot (Y \cdot Z \cdot o - X \cdot p \cdot q)}}{X \cdot p \cdot q^2} = 0$



$N_1 = 3.00000$
$N_2 = 2.00000$
$N_3 = 1.20000$
$R = 0.48000$

$\frac{N_3 \cdot \sqrt{N_1 \cdot N_2 \cdot N_3 - N_2^2 \cdot N_3^2}}{N_1} - R = 0.00000$

3OBT7R8



Unit. $AB := 1$ **Given.** $N_1 := 2.16162$ $N_2 := 1.23232$ $N_3 := 1.42424$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

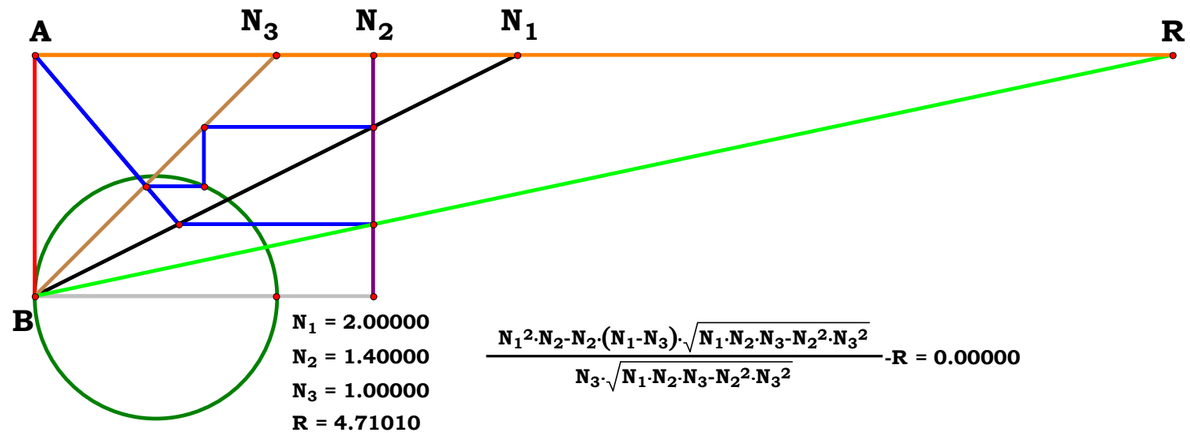
$OQ := \frac{N_2}{N_1}$ $BK := N_3 \cdot OQ$

$JK := \sqrt{BK \cdot (AB - BK)}$ $BE := N_3 \cdot JK$

$BM := \frac{BE \cdot AB}{AB - JK}$ $BG := \frac{N_1 \cdot BM}{N_1 + BM}$

$FG := \frac{AB \cdot BG}{N_1}$ $R := \frac{N_2 \cdot AB}{FG}$

$R = 4.148451$



$\frac{N_1^2 \cdot N_2 - N_2 \cdot (N_1 - N_3) \cdot \sqrt{N_1 \cdot N_2 \cdot N_3 - N_2^2 \cdot N_3^2}}{N_3 \cdot \sqrt{N_1 \cdot N_2 \cdot N_3 - N_2^2 \cdot N_3^2}} - R = 0.00000$

Definitions.

$$R - \frac{N_1^2 \cdot N_2 - N_2 \cdot (N_1 - N_3) \cdot \sqrt{N_1 \cdot N_2 \cdot N_3 - N_2^2 \cdot N_3^2}}{N_3 \cdot \sqrt{N_1 \cdot N_2 \cdot N_3 - N_2^2 \cdot N_3^2}} = 0$$

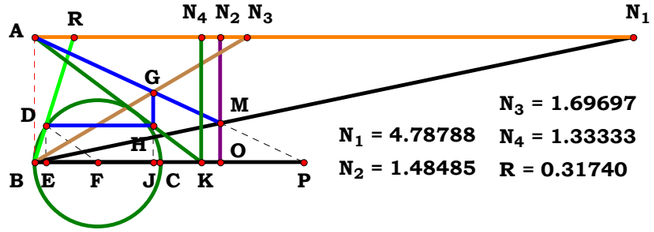
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$

$$R - \frac{N_u \cdot \left[\sqrt{A \cdot B \cdot C \cdot N_u - A^2 \cdot N_u^2} \cdot (A - C) + B \cdot C^2\right]}{A \cdot B \cdot \sqrt{A \cdot (B \cdot C \cdot N_u - A \cdot N_u^2)}} = 0$$

$N_1 - \frac{X}{o} = 0$ $N_2 - \frac{Y}{p} = 0$ $N_3 - \frac{Z}{q} = 0$

$$R - \frac{Y \cdot \left[X^2 \cdot p \cdot q^2 - \sqrt{X \cdot Y \cdot Z \cdot p \cdot q - Y^2 \cdot Z^2 \cdot o} \cdot \sqrt{o} \cdot (X \cdot q - Z \cdot o)\right]}{Z \cdot o^{\frac{3}{2}} \cdot p \cdot \sqrt{X \cdot Y \cdot Z \cdot p \cdot q - Y^2 \cdot Z^2 \cdot o}} = 0$$

3OBT8R0



Unit. $AB := 1$ Given. $N_1 := 4.78788$ $N_2 := 1.48485$ $N_3 := 1.69697$ $N_4 := 1.33333$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

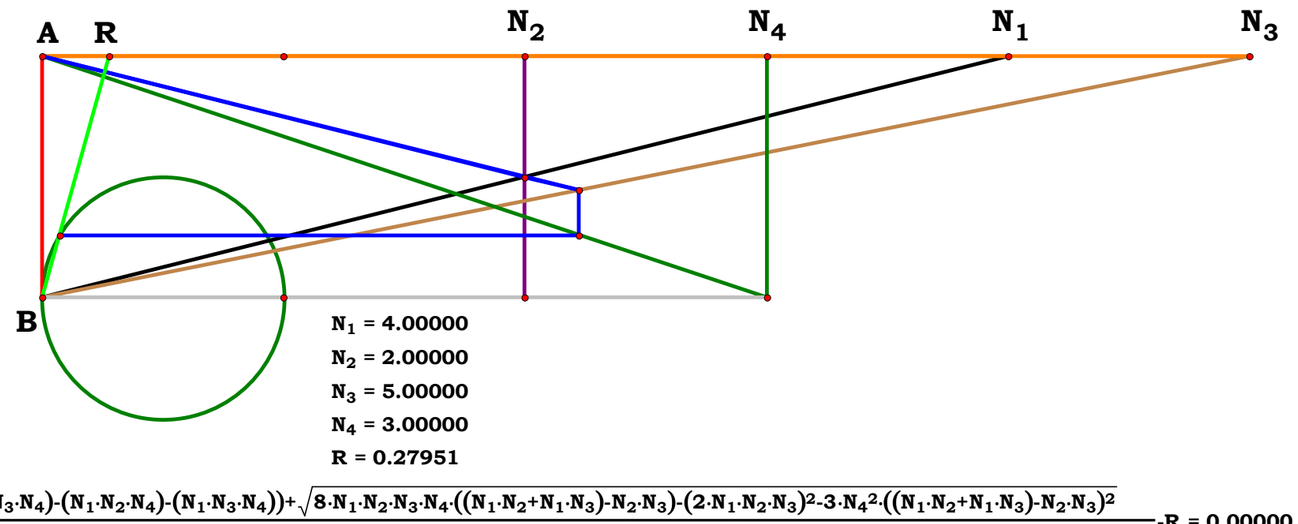
$MO := \frac{N_2}{N_1}$ $BP := \frac{N_2 \cdot AB}{AB - MO}$

$BJ := \frac{N_3 \cdot BP}{N_3 + BP}$ $JK := N_4 - BJ$

$HJ := \frac{AB \cdot JK}{N_4}$ $EF := \sqrt{\left(\frac{AB}{2}\right)^2 - HJ^2}$

$BE := \frac{AB}{2} - EF$ $R := \frac{BE \cdot AB}{HJ}$

$R = 0.317401$



$Boolean := \frac{EF^2 + \sqrt{EF^4}}{2\sqrt{EF^4}}$

$$\frac{((N_2 \cdot N_3 \cdot N_4) - (N_1 \cdot N_2 \cdot N_4) - (N_1 \cdot N_3 \cdot N_4)) + \sqrt{8 \cdot N_1 \cdot N_2 \cdot N_3 \cdot N_4 \cdot ((N_1 \cdot N_2 + N_1 \cdot N_3) - N_2 \cdot N_3) - (2 \cdot N_1 \cdot N_2 \cdot N_3)^2 - 3 \cdot N_4^2 \cdot ((N_1 \cdot N_2 + N_1 \cdot N_3) - N_2 \cdot N_3)^2}}{(2 \cdot ((N_1 \cdot N_2 \cdot N_3 - N_1 \cdot N_2 \cdot N_4 - N_1 \cdot N_3 \cdot N_4) + N_2 \cdot N_3 \cdot N_4))} - R = 0.00000$$

Definitions.

Boolean $= 1$

$$R - \frac{\sqrt{8 \cdot N_1 \cdot N_2 \cdot N_3 \cdot N_4 \cdot (N_1 \cdot N_2 + N_1 \cdot N_3 - N_2 \cdot N_3) - 4 \cdot N_1^2 \cdot N_2^2 \cdot N_3^2 - 3 \cdot N_4^2 \cdot (N_1 \cdot N_2 + N_1 \cdot N_3 - N_2 \cdot N_3)^2} - N_1 \cdot N_2 \cdot N_4 - N_1 \cdot N_3 \cdot N_4 + N_2 \cdot N_3 \cdot N_4}{2 \cdot (N_1 \cdot N_2 \cdot N_3 - N_1 \cdot N_2 \cdot N_4 - N_1 \cdot N_3 \cdot N_4 + N_2 \cdot N_3 \cdot N_4)} = 0$$

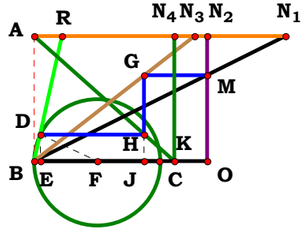
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{A - B - C + \sqrt{(B - A + C - 2 \cdot D) \cdot (3 \cdot A - 3 \cdot B - 3 \cdot C + 2 \cdot D)}}{2 \cdot (A - B - C + D)} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{\sqrt{(W \cdot X \cdot Z \cdot o - 2 \cdot W \cdot X \cdot Y \cdot p + W \cdot Y \cdot Z \cdot n - X \cdot Y \cdot Z \cdot m) \cdot (2 \cdot W \cdot X \cdot Y \cdot p - 3 \cdot W \cdot X \cdot Z \cdot o - 3 \cdot W \cdot Y \cdot Z \cdot n + 3 \cdot X \cdot Y \cdot Z \cdot m)} - W \cdot X \cdot Z \cdot o - W \cdot Y \cdot Z \cdot n + X \cdot Y \cdot Z \cdot m}{2 \cdot (W \cdot X \cdot Y \cdot p - W \cdot X \cdot Z \cdot o - W \cdot Y \cdot Z \cdot n + X \cdot Y \cdot Z \cdot m)} = 0$$

3OBT8R1



$N_1 = 2.01010$
$N_2 = 1.38384$
$N_3 = 1.28283$
$N_4 = 1.12121$
$R = 0.22287$

Unit. $AB := 1$ **Given.** $N_1 := 2.01010$ $N_2 := 1.38384$ $N_3 := 1.28283$ $N_4 := 1.12121$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

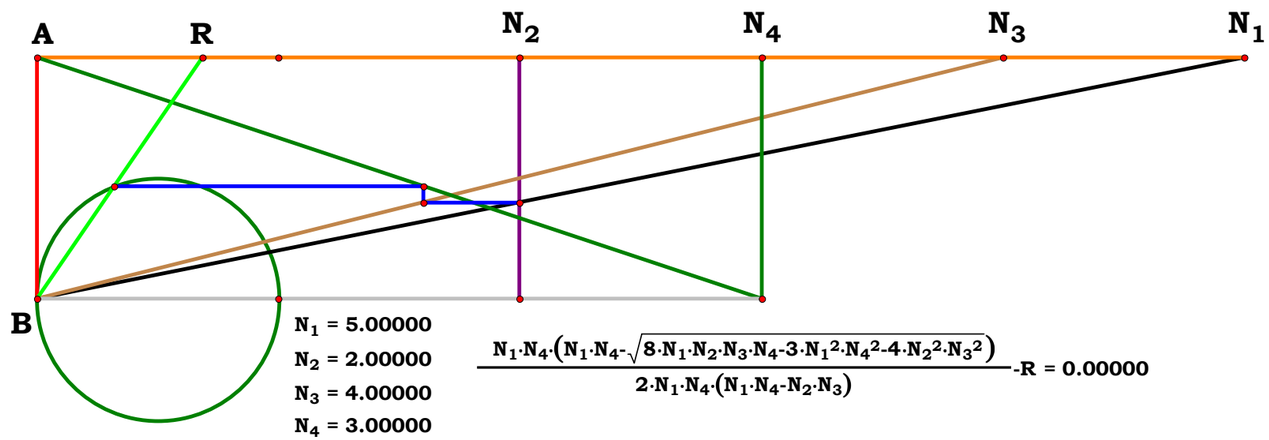
$MO := \frac{N_2}{N_1}$ $BJ := N_3 \cdot MO$

$CJ := N_4 - BJ$ $HJ := \frac{AB \cdot CJ}{N_4}$

$EF := \sqrt{\left(\frac{AB}{2}\right)^2 - HJ^2}$ $BE := \frac{AB}{2} - EF$

$R := \frac{BE \cdot AB}{HJ}$ $R = 0.222865$

$Boolean := \frac{EF^2 + \sqrt{EF^4}}{2\sqrt{EF^4}}$



$N_1 = 5.00000$
$N_2 = 2.00000$
$N_3 = 4.00000$
$N_4 = 3.00000$
$R = 0.68677$

$$\frac{N_1 \cdot N_4 \cdot \left(N_1 \cdot N_4 - \sqrt{8 \cdot N_1 \cdot N_2 \cdot N_3 \cdot N_4 - 3 \cdot N_1^2 \cdot N_4^2 - 4 \cdot N_2^2 \cdot N_3^2}\right)}{2 \cdot N_1 \cdot N_4 \cdot \left(N_1 \cdot N_4 - N_2 \cdot N_3\right)} - R = 0.00000$$

Definitions.

Boolean $= 1$

$$R - \frac{N_1 \cdot N_4 \cdot \left(N_1 \cdot N_4 - \sqrt{8 \cdot N_1 \cdot N_2 \cdot N_3 \cdot N_4 - 3 \cdot N_1^2 \cdot N_4^2 - 4 \cdot N_2^2 \cdot N_3^2}\right)}{2 \cdot \left(N_1 \cdot N_4\right) \cdot \left(N_1 \cdot N_4 - N_2 \cdot N_3\right)} = 0$$

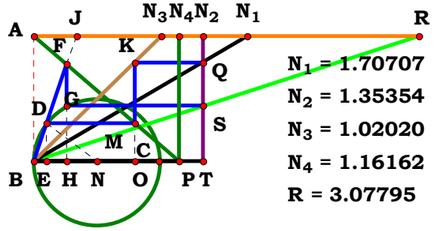
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{\sqrt{(B \cdot C - 2 \cdot A \cdot D) \cdot (2 \cdot A \cdot D - 3 \cdot B \cdot C)} - B \cdot C}{2 \cdot (A \cdot D - B \cdot C)} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{W \cdot Z \cdot n \cdot o - \sqrt{(W \cdot Z \cdot n \cdot o - 2 \cdot X \cdot Y \cdot m \cdot p) \cdot (2 \cdot X \cdot Y \cdot m \cdot p - 3 \cdot W \cdot Z \cdot n \cdot o)}}{2 \cdot (W \cdot Z \cdot n \cdot o - X \cdot Y \cdot m \cdot p)} = 0$$

3OBT8R2



Unit. $AB := 1$ **Given.** $N_1 := 1.70707$ $N_2 := 1.35354$ $N_3 := 1.02020$ $N_4 := 1.16162$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

Descriptions.

$QT := \frac{N_2}{N_1}$ $BO := N_3 \cdot QT$ $OP := N_4 - BO$

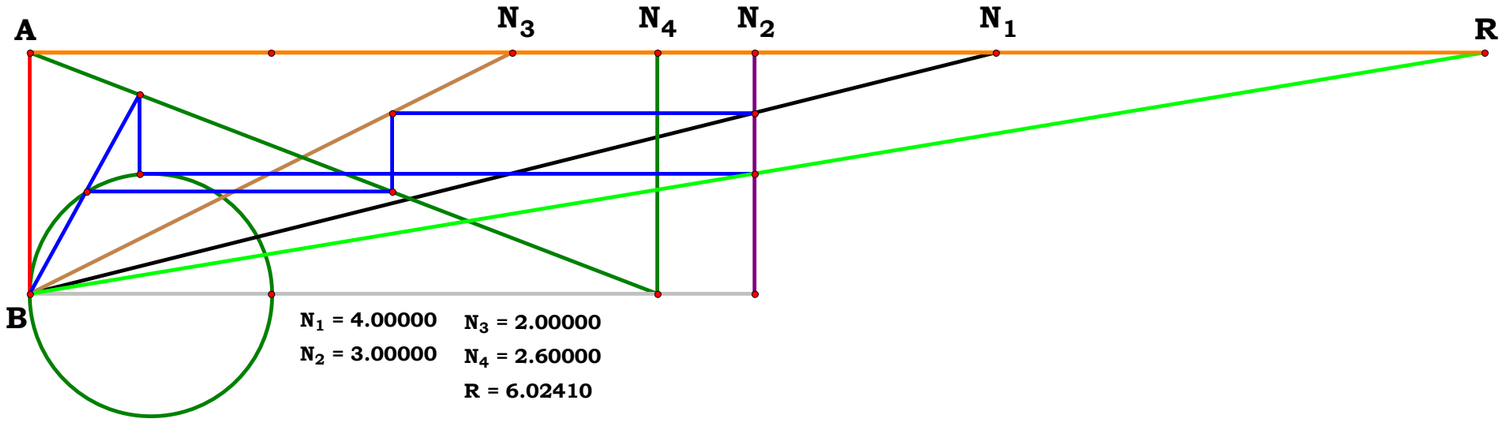
$MO := \frac{AB \cdot OP}{N_4}$ $EN := \sqrt{\left(\frac{AB}{2}\right)^2 - MO^2}$

$BE := \frac{AB}{2} - EN$ $AJ := \frac{BE \cdot AB}{MO}$

$BH := \frac{AJ \cdot N_4}{AJ + N_4}$ $GH := \sqrt{BH \cdot (AB - BH)}$

$R := \frac{N_2 \cdot AB}{GH}$ $R = 3.077953$

$Boolean := \frac{EN^2 + \sqrt{EN^4}}{2\sqrt{EN^4}}$



$$\frac{((N_1 \cdot N_2 \cdot N_4) \cdot ((((2 \cdot N_1 \cdot N_4^2) - \sqrt{(N_1 \cdot N_4 - 2 \cdot N_2 \cdot N_3) \cdot (2 \cdot N_2 \cdot N_3 - 3 \cdot N_1 \cdot N_4)}) + (N_1 \cdot N_4)) - (2 \cdot N_2 \cdot N_3 \cdot N_4)))}{\sqrt{(((N_1^4 \cdot N_4^6 + N_1^3 \cdot N_4^5 \cdot (N_1 - 2 \cdot N_2 \cdot N_3)) - (2 \cdot N_1^2 \cdot N_4^4 \cdot (N_1 - N_2 \cdot N_3)) \cdot \sqrt{(N_1 \cdot N_4 - 2 \cdot N_2 \cdot N_3) \cdot (2 \cdot N_2 \cdot N_3 - 3 \cdot N_1 \cdot N_4)}) + (N_1^2 \cdot N_4^3 \cdot (N_1 \cdot N_4 - 2 \cdot N_2 \cdot N_3) \cdot (2 \cdot N_2 \cdot N_3 - 3 \cdot N_1 \cdot N_4))) - (N_1^2 \cdot N_4^4 \cdot (N_1 \cdot N_4 - 2 \cdot N_2 \cdot N_3) \cdot (2 \cdot N_2 \cdot N_3 - 3 \cdot N_1 \cdot N_4))}} - R = 0.00000$$

Definitions.

Boolean $= 1$

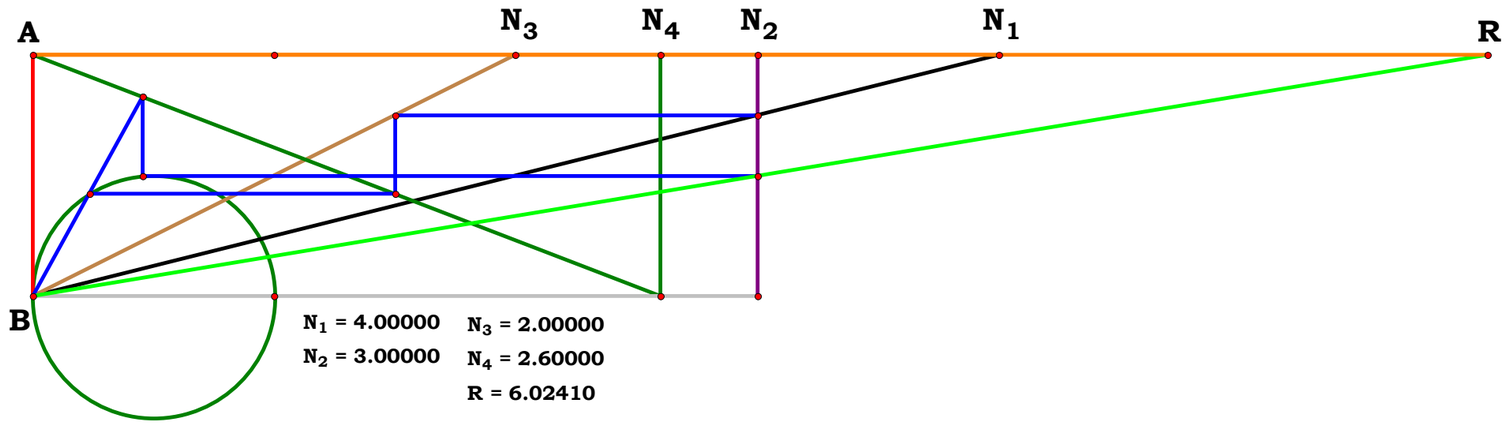
$$R - \frac{N_1 \cdot N_2 \cdot N_4 \cdot \left[2 \cdot N_1 \cdot N_4^2 - \sqrt{(N_1 \cdot N_4 - 2 \cdot N_2 \cdot N_3) \cdot (2 \cdot N_2 \cdot N_3 - 3 \cdot N_1 \cdot N_4)} + N_1 \cdot N_4 - 2 \cdot N_2 \cdot N_3 \cdot N_4\right]}{\sqrt{2 \cdot N_1^2 \cdot N_4^3 \cdot \left(\begin{array}{l} 2 \cdot N_1^2 \cdot N_4^3 - 2 \cdot N_2^2 \cdot N_3^2 - N_1^2 \cdot N_4^2 - N_1 \cdot N_4 \cdot \sqrt{8 \cdot N_1 \cdot N_2 \cdot N_3 \cdot N_4 - 3 \cdot N_1^2 \cdot N_4^2 - 4 \cdot N_2^2 \cdot N_3^2} \ \ldots \\ + \ 2 \cdot N_2^2 \cdot N_3^2 \cdot N_4 + 4 \cdot N_1 \cdot N_2 \cdot N_3 \cdot N_4 + N_2 \cdot N_3 \cdot N_4 \cdot \sqrt{8 \cdot N_1 \cdot N_2 \cdot N_3 \cdot N_4 - 3 \cdot N_1^2 \cdot N_4^2 - 4 \cdot N_2^2 \cdot N_3^2} - 5 \cdot N_1 \cdot N_2 \cdot N_3 \cdot N_4^2 \end{array}\right)}} = 0$$

$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{\sqrt{2} \cdot N_u^2 \cdot \left[B \cdot C \cdot D - D \cdot \sqrt{8 \cdot A \cdot B \cdot C \cdot D - 4 \cdot A^2 \cdot D^2 - 3 \cdot B^2 \cdot C^2} - 2 \cdot N_u \cdot (A \cdot D - B \cdot C)\right]}{2 \cdot B \cdot \sqrt{2 \cdot A \cdot D^2 \cdot N_u^3 \cdot (2 \cdot B \cdot C + A \cdot N_u) - D \cdot N_u^3 \cdot \left[B^2 \cdot C^2 + \sqrt{(2 \cdot A \cdot D - 3 \cdot B \cdot C) \cdot (B \cdot C - 2 \cdot A \cdot D)} \cdot (B \cdot C - A \cdot N_u) + 5 \cdot A \cdot B \cdot C \cdot N_u\right] - 2 \cdot N_u^3 \cdot (A^2 \cdot D^3 - B^2 \cdot C^2 \cdot N_u)}} = 0$$

$W := 20 \quad X := 19 \quad Y := 18 \quad Z := 17 \quad m := \frac{W}{N_1} \quad n := \frac{X}{N_2} \quad o := \frac{Y}{N_3} \quad p := \frac{Z}{N_4}$

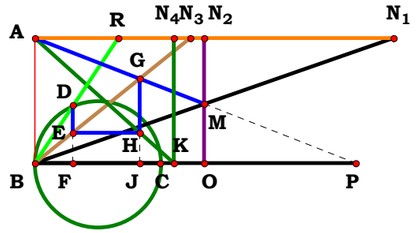
$N_1 - \frac{W}{m} = 0 \quad N_2 - \frac{X}{n} = 0 \quad N_3 - \frac{Y}{o} = 0 \quad N_4 - \frac{Z}{p} = 0$



$$\frac{((N_1 \cdot N_2 \cdot N_4) \cdot ((((2 \cdot N_1 \cdot N_4^2) - \sqrt{(N_1 \cdot N_4 - 2 \cdot N_2 \cdot N_3) \cdot (2 \cdot N_2 \cdot N_3 - 3 \cdot N_1 \cdot N_4)}) + (N_1 \cdot N_4)) - (2 \cdot N_2 \cdot N_3 \cdot N_4)))}{\sqrt{(((N_1^4 \cdot N_4^6 + N_1^3 \cdot N_4^5 \cdot (N_1 - 2 \cdot N_2 \cdot N_3)) - (2 \cdot N_1^2 \cdot N_4^4 \cdot (N_1 - N_2 \cdot N_3)) \cdot \sqrt{(N_1 \cdot N_4 - 2 \cdot N_2 \cdot N_3) \cdot (2 \cdot N_2 \cdot N_3 - 3 \cdot N_1 \cdot N_4)}) + (N_1^2 \cdot N_4^3 \cdot (N_1 \cdot N_4 - 2 \cdot N_2 \cdot N_3) \cdot (2 \cdot N_2 \cdot N_3 - 3 \cdot N_1 \cdot N_4))) - (N_1^2 \cdot N_4^4 \cdot (N_1 \cdot N_4 - 2 \cdot N_2 \cdot N_3) \cdot (2 \cdot N_2 \cdot N_3 - 3 \cdot N_1 \cdot N_4))}} - R = 0.00000$$

$$R - \frac{\sqrt{2} \cdot W \cdot X \cdot Z \cdot \left(2 \cdot W \cdot Z^2 \cdot n \cdot o - p \cdot \sqrt{8 \cdot W \cdot X \cdot Y \cdot Z \cdot m \cdot n \cdot o \cdot p - 3 \cdot W^2 \cdot Z^2 \cdot n^2 \cdot o^2 - 4 \cdot X^2 \cdot Y^2 \cdot m^2 \cdot p^2} - 2 \cdot X \cdot Y \cdot Z \cdot m \cdot p + W \cdot Z \cdot n \cdot o \cdot p\right)}{2 \cdot n \cdot \sqrt{\begin{matrix} W^2 \cdot Z^3 \cdot \left(2 \cdot W^2 \cdot Z^3 \cdot n^2 \cdot o^2 - W^2 \cdot Z^2 \cdot n^2 \cdot o^2 \cdot p - 5 \cdot W \cdot X \cdot Y \cdot Z^2 \cdot m \cdot n \cdot o \cdot p + 4 \cdot W \cdot X \cdot Y \cdot Z \cdot m \cdot n \cdot o \cdot p^2 + 2 \cdot X^2 \cdot Y^2 \cdot Z \cdot m^2 \cdot p^2 - 2 \cdot X^2 \cdot Y^2 \cdot m^2 \cdot p^3\right) \ldots \\ + \ W^2 \cdot Z^3 \cdot (X \cdot Y \cdot Z \cdot m \cdot p - W \cdot Z \cdot n \cdot o \cdot p) \cdot \sqrt{(W \cdot Z \cdot n \cdot o - 2 \cdot X \cdot Y \cdot m \cdot p) \cdot (2 \cdot X \cdot Y \cdot m \cdot p - 3 \cdot W \cdot Z \cdot n \cdot o)} \end{matrix}}} = 0$$

3OBT8R3



$N_1 = 2.86869$
$N_2 = 1.35354$
$N_3 = 1.24242$
$N_4 = 1.11111$
$R = 0.66524$

Unit. $AB := 1$ **Given.** $N_1 := 2.86869$ $N_2 := 1.35354$ $N_3 := 1.24242$ $N_4 := 1.11111$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

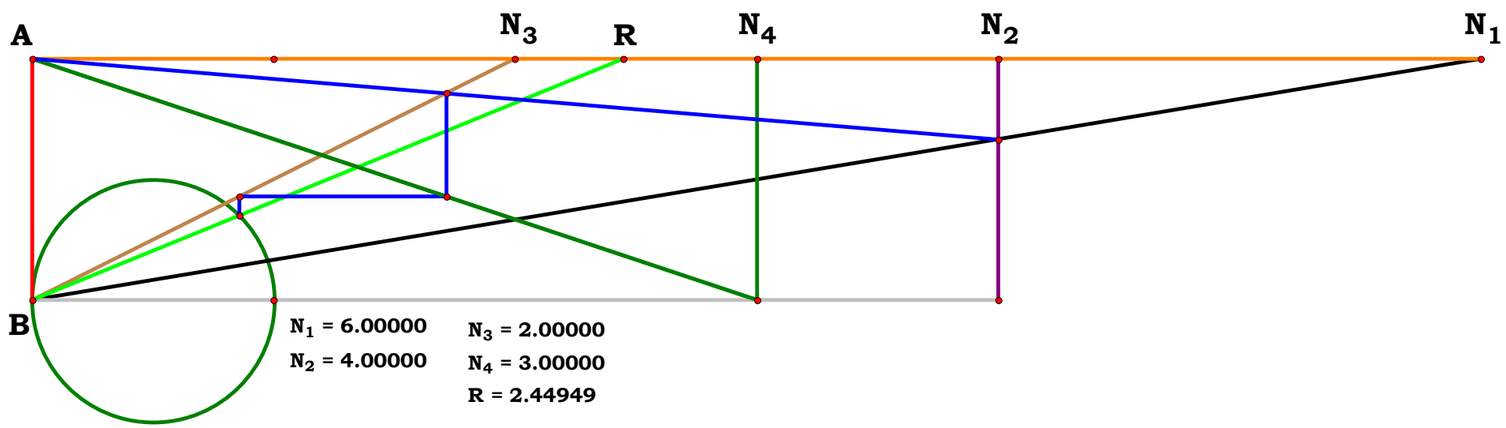
$MO := \frac{N_2}{N_1}$ $BP := \frac{N_2 \cdot AB}{AB - MO}$ $BJ := \frac{N_3 \cdot BP}{BP + N_3}$

$JK := N_4 - BJ$ $HJ := \frac{AB \cdot JK}{N_4}$ $BF := N_3 \cdot HJ$

$DF := \sqrt{BF \cdot (AB - BF)}$ $R := \frac{BF \cdot AB}{DF}$

$R = 0.665236$

$Boolean := \frac{DF^2 + \sqrt{DF^4}}{2\sqrt{DF^4}}$



$N_1 = 6.00000$
$N_2 = 4.00000$
$N_3 = 2.00000$
$N_4 = 3.00000$
$R = 2.44949$

Definitions.

$$\frac{(N_3 \cdot N_4 \cdot ((N_1 \cdot N_2 + N_1 \cdot N_3) - N_2 \cdot N_3) \cdot (N_4 \cdot ((N_1 \cdot N_2 + N_1 \cdot N_3) - N_2 \cdot N_3) - (N_1 \cdot N_2 \cdot N_3)))}{(N_4 \cdot ((N_1 \cdot N_2 + N_1 \cdot N_3) - N_2 \cdot N_3) \cdot \sqrt{(N_1 \cdot N_2 \cdot N_3^2 \cdot N_4 \cdot (2 \cdot N_3 - 1)) \cdot ((N_1 \cdot N_2 + N_1 \cdot N_3) - N_2 \cdot N_3) - (N_3 \cdot N_4^2 \cdot (N_3 - 1)) \cdot ((N_1 \cdot N_2 + N_1 \cdot N_3) - N_2 \cdot N_3)^2 - (N_1^2 \cdot N_2^2 \cdot N_3^4)})} - R = 0.00000$$

Boolean $= 1$

$$R - \frac{N_3 \cdot \left[N_4 \cdot \left(N_1 \cdot N_2 + N_1 \cdot N_3 - N_2 \cdot N_3\right)\right] \cdot \left[N_4 \cdot \left(N_1 \cdot N_2 + N_1 \cdot N_3 - N_2 \cdot N_3\right) - N_1 \cdot N_2 \cdot N_3\right]}{N_4 \cdot \left(N_1 \cdot N_2 + N_1 \cdot N_3 - N_2 \cdot N_3\right) \cdot \sqrt{N_4 \cdot N_1 \cdot N_2 \cdot N_3^2 \cdot \left(2 \cdot N_3 - 1\right) \cdot \left(N_1 \cdot N_2 + N_1 \cdot N_3 - N_2 \cdot N_3\right) - N_3 \cdot N_4^2 \cdot \left(N_3 - 1\right) \cdot \left(N_1 \cdot N_2 + N_1 \cdot N_3 - N_2 \cdot N_3\right)^2 - N_1^2 \cdot N_2^2 \cdot N_3^4}} = 0$$

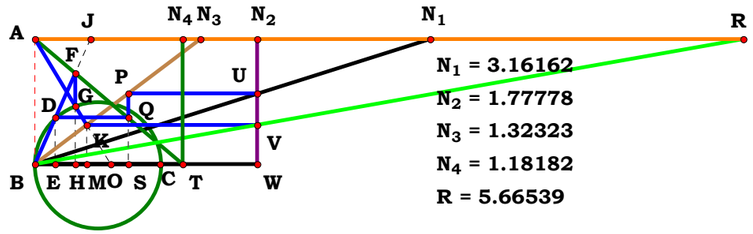
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{N_u \cdot (B - A + C - D)}{\sqrt{N_u \cdot (B - A + C - D) \cdot \left[N_u \cdot (A - B - C + D) + C \cdot (B - A + C)\right]}} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{Y \cdot (W \cdot X \cdot Z \cdot o - W \cdot X \cdot Y \cdot p + W \cdot Y \cdot Z \cdot n - X \cdot Y \cdot Z \cdot m)}{\sqrt{Y \cdot (W \cdot X \cdot Z \cdot o - W \cdot X \cdot Y \cdot p + W \cdot Y \cdot Z \cdot n - X \cdot Y \cdot Z \cdot m) \cdot \left(W \cdot X \cdot Z \cdot o^2 + W \cdot X \cdot Y^2 \cdot p - W \cdot Y^2 \cdot Z \cdot n + X \cdot Y^2 \cdot Z \cdot m - W \cdot X \cdot Y \cdot Z \cdot o + W \cdot Y \cdot Z \cdot n \cdot o - X \cdot Y \cdot Z \cdot m \cdot o\right)}} = 0$$

3OBT8R4



$N_1 = 3.16162$
$N_2 = 1.77778$
$N_3 = 1.32323$
$N_4 = 1.18182$
$R = 5.66539$

Unit. $AB := 1$ Given. $N_1 := 3.16162$ $N_2 := 1.77778$ $N_3 := 1.32323$ $N_4 := 1.18182$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

Descriptions.

$BS := N_3 \cdot \frac{N_2}{N_1}$ $DE := \frac{AB \cdot (N_4 - BS)}{N_4}$ $BE := \frac{AB}{2} - \sqrt{\left(\frac{AB}{2}\right)^2 - DE^2}$ $AJ := \frac{BE \cdot AB}{DE}$ $BH := \frac{AJ \cdot N_4}{AJ + N_4}$

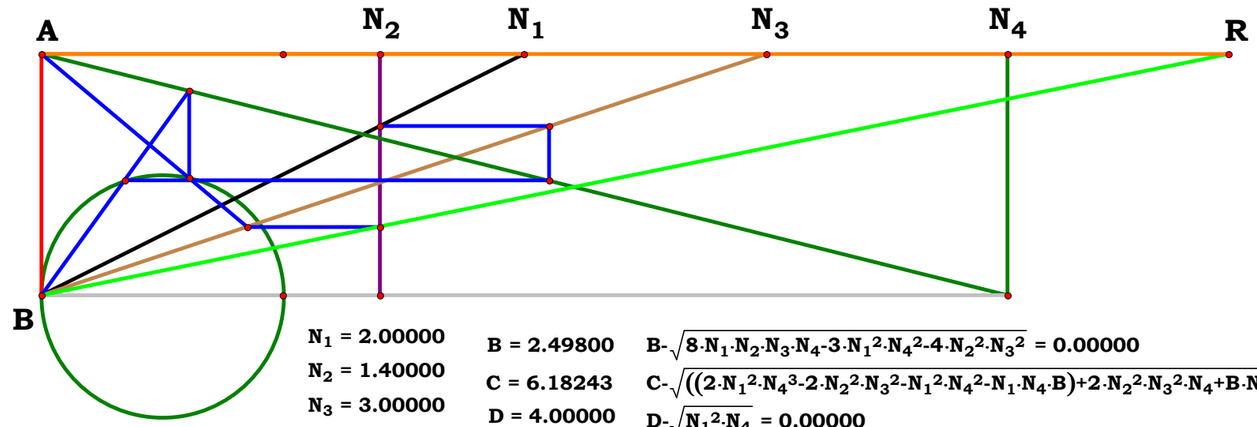
$GH := \sqrt{BH \cdot (AB - BH)}$

$BO := \frac{BH \cdot AB}{AB - GH}$ $BM := \frac{N_3 \cdot BO}{N_3 + BO}$

$VW := \frac{AB \cdot BM}{N_3}$ $R := \frac{N_2 \cdot AB}{VW}$

$R = 5.665355$

$Boolean := \frac{GH^2 + \sqrt{GH^4}}{2\sqrt{GH^4}}$



$N_1 = 2.00000$
$N_2 = 1.40000$
$N_3 = 3.00000$
$N_4 = 4.00000$
$R = 4.91440$

$B = 2.49800$
$C = 6.18243$
$D = 4.00000$

$B - \sqrt{8 \cdot N_1 \cdot N_2 \cdot N_3 \cdot N_4 - 3 \cdot N_1^2 \cdot N_4^2 - 4 \cdot N_2^2 \cdot N_3^2} = 0.00000$

$C - \sqrt{((2 \cdot N_1^2 \cdot N_4^3 - 2 \cdot N_2^2 \cdot N_3^2 - N_1^2 \cdot N_4^2 - N_1 \cdot N_4 \cdot B) + 2 \cdot N_2^2 \cdot N_3^2 \cdot N_4 + B \cdot N_2 \cdot N_3 \cdot N_4 + 4 \cdot N_1 \cdot N_2 \cdot N_3 \cdot N_4) - 5 \cdot N_1 \cdot N_2 \cdot N_3 \cdot N_4^2} = 0.00000$

$D - \sqrt{N_1^2 \cdot N_4} = 0.00000$

$\frac{2 \cdot N_2 \cdot ((B \cdot D \cdot (N_3 + N_4) - D \cdot N_1 \cdot N_4 \cdot (N_3 + N_4) - 2 \cdot D \cdot N_3 \cdot N_4 \cdot (N_1 \cdot N_4 - N_2 \cdot N_3)) + \sqrt{2} \cdot C \cdot N_1 \cdot N_3 \cdot N_4)}{2 \cdot (B - N_1 \cdot N_4) \cdot D \cdot N_4} - R = 0.00000$

Definitions.

Boolean = 1

$$R - \frac{\sqrt{N_1^2 \cdot N_4} \cdot N_2 \cdot \left[2 \cdot N_2 \cdot N_3^2 \cdot N_4 - 2 \cdot N_1 \cdot N_3 \cdot N_4^2 - N_1 \cdot N_3 \cdot N_4 + \sqrt{(N_1 \cdot N_4 - 2 \cdot N_2 \cdot N_3) \cdot (2 \cdot N_2 \cdot N_3 - 3 \cdot N_1 \cdot N_4)} \cdot (N_3 + N_4) - N_1 \cdot N_4^2\right] \ \ldots}{\left[\sqrt{(N_1 \cdot N_4 - 2 \cdot N_2 \cdot N_3) \cdot (2 \cdot N_2 \cdot N_3 - 3 \cdot N_1 \cdot N_4)} - N_1 \cdot N_4\right] \cdot \sqrt{N_1^2 \cdot N_4} \cdot N_4} = 0$$

$$\ldots \ + \sqrt{2} \cdot \sqrt{N_1^2 \cdot N_4^2 \cdot (2 \cdot N_4 - 1) - N_1 \cdot N_2 \cdot N_3 \cdot N_4 \cdot (5 \cdot N_4 - 4) + 2 \cdot N_2^2 \cdot N_3^2 \cdot (N_4 - 1) - \sqrt{(N_1 \cdot N_4 - 2 \cdot N_2 \cdot N_3) \cdot (2 \cdot N_2 \cdot N_3 - 3 \cdot N_1 \cdot N_4)} \cdot N_4 \cdot (N_1 - N_2 \cdot N_3)} \cdot N_1 \cdot N_2 \cdot N_3 \cdot N_4$$

$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{\sqrt{2} \cdot \sqrt{D \cdot N_u^4 \cdot (A \cdot N_u - B \cdot C) \cdot \sqrt{(B \cdot C - 2 \cdot A \cdot D) \cdot (2 \cdot A \cdot D - 3 \cdot B \cdot C)} + C^2 \cdot B^2 \cdot N_u^4 \cdot (2 \cdot N_u - D) + C \cdot A \cdot B \cdot D \cdot N_u^4 \cdot (4 \cdot D - 5 \cdot N_u) + 2 \cdot A^2 \cdot D^2 \cdot N_u^4 \cdot (N_u - D)} \ \ldots}{B \cdot C \cdot \sqrt{N_u} \cdot \left[\sqrt{(B \cdot C - 2 \cdot A \cdot D) \cdot (2 \cdot A \cdot D - 3 \cdot B \cdot C)} - B \cdot C\right]} = 0$$

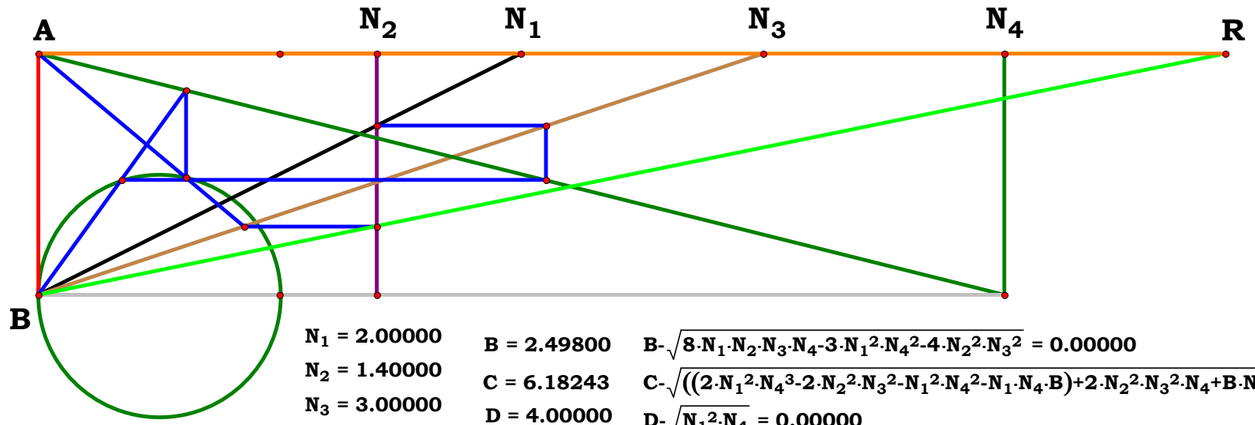
$$\ldots \ + \left(\sqrt{N_u}\right)^3 \cdot \left[\sqrt{(B \cdot C - 2 \cdot A \cdot D) \cdot (2 \cdot A \cdot D - 3 \cdot B \cdot C)} \cdot (C + D) - B \cdot C^2 - B \cdot C \cdot D + 2 \cdot A \cdot D \cdot N_u - 2 \cdot B \cdot C \cdot N_u\right]$$

$W := 20 \quad X := 19 \quad Y := 18 \quad Z := 17 \quad m := \frac{W}{N_1} \quad n := \frac{X}{N_2} \quad o := \frac{Y}{N_3} \quad p := \frac{Z}{N_4}$

$N_1 - \frac{W}{m} = 0 \quad N_2 - \frac{X}{n} = 0$

$N_3 - \frac{Y}{o} = 0 \quad N_4 - \frac{Z}{p} = 0$

$R = 5.665355$



$N_1 = 2.00000$
$N_2 = 1.40000$
$N_3 = 3.00000$
$N_4 = 4.00000$
$R = 4.91440$

$B = 2.49800$
$C = 6.18243$
$D = 4.00000$

$B - \sqrt{8 \cdot N_1 \cdot N_2 \cdot N_3 \cdot N_4 - 3 \cdot N_1^2 \cdot N_4^2 - 4 \cdot N_2^2 \cdot N_3^2} = 0.00000$

$C - \sqrt{\left((2 \cdot N_1^2 \cdot N_4^3 - 2 \cdot N_2^2 \cdot N_3^2 - N_1^2 \cdot N_4^2 - N_1 \cdot N_4 \cdot B) + 2 \cdot N_2^2 \cdot N_3^2 \cdot N_4 + B \cdot N_2 \cdot N_3 \cdot N_4 + 4 \cdot N_1 \cdot N_2 \cdot N_3 \cdot N_4\right) - 5 \cdot N_1 \cdot N_2 \cdot N_3 \cdot N_4^2} = 0.00000$

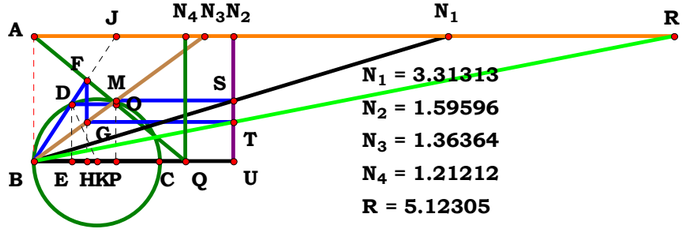
$D - \sqrt{N_1^2 \cdot N_4} = 0.00000$

$$\frac{2 \cdot N_2 \cdot \left((B \cdot D \cdot (N_3 + N_4) - D \cdot N_1 \cdot N_4 \cdot (N_3 + N_4) - 2 \cdot D \cdot N_3 \cdot N_4 \cdot (N_1 \cdot N_4 - N_2 \cdot N_3)) + \sqrt{2} \cdot C \cdot N_1 \cdot N_3 \cdot N_4\right)}{2 \cdot (B - N_1 \cdot N_4) \cdot D \cdot N_4} - R = 0.00000$$

$$R - \frac{X \cdot \left[W \cdot Z^2 \cdot n \cdot o^2 - \sqrt{8 \cdot W \cdot X \cdot Y \cdot Z \cdot m \cdot n \cdot o \cdot p - 3 \cdot W^2 \cdot Z^2 \cdot n^2 \cdot o^2 - 4 \cdot X^2 \cdot Y^2 \cdot m^2 \cdot p^2} \cdot (Y \cdot p + Z \cdot o) \ \ldots \right.}{Z \cdot n \cdot o \cdot \left[W \cdot Z \cdot n \cdot o - \sqrt{(W \cdot Z \cdot n \cdot o - 2 \cdot X \cdot Y \cdot m \cdot p) \cdot (2 \cdot X \cdot Y \cdot m \cdot p - 3 \cdot W \cdot Z \cdot n \cdot o)} \right]}$$

$$\left. + \ -\sqrt{2} \cdot Y \cdot \sqrt{Z} \cdot \sqrt{\begin{array}{l} 2 \cdot W^2 \cdot Z^3 \cdot n^2 \cdot o^2 - 2 \cdot X^2 \cdot Y^2 \cdot m^2 \cdot p^3 + 2 \cdot X^2 \cdot Y^2 \cdot Z \cdot m^2 \cdot p^2 - W^2 \cdot Z^2 \cdot n^2 \cdot o^2 \cdot p \ \ldots \\ + \ \sqrt{8 \cdot W \cdot X \cdot Y \cdot Z \cdot m \cdot n \cdot o \cdot p - 3 \cdot W^2 \cdot Z^2 \cdot n^2 \cdot o^2 - 4 \cdot X^2 \cdot Y^2 \cdot m^2 \cdot p^2} \cdot Z \cdot p \cdot (X \cdot Y \cdot m - W \cdot n \cdot o) \ \ldots \\ + \ 4 \cdot W \cdot X \cdot Y \cdot Z \cdot m \cdot n \cdot o \cdot p^2 - 5 \cdot W \cdot X \cdot Y \cdot Z^2 \cdot m \cdot n \cdot o \cdot p \end{array}} + Y \cdot Z \cdot (2 \cdot W \cdot Z \cdot n \cdot o - 2 \cdot X \cdot Y \cdot m \cdot p + W \cdot n \cdot o \cdot p) \right] = 0$$

3OBT8R5



Unit. $AB := 1$ Given. $N_1 := 3.31313$ $N_2 := 1.59596$ $N_3 := 1.36364$

$N_4 := 1.21212$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

Descriptions.

$SU := \frac{N_2}{N_1}$ $bp := N_3 \cdot SU$

$OP := \frac{N_4 - bp}{N_4}$ $EK := \sqrt{\left(\frac{AB}{2}\right)^2 - OP^2}$ $BE := \frac{AB}{2} - EK$ $AJ := \frac{BE}{OP}$

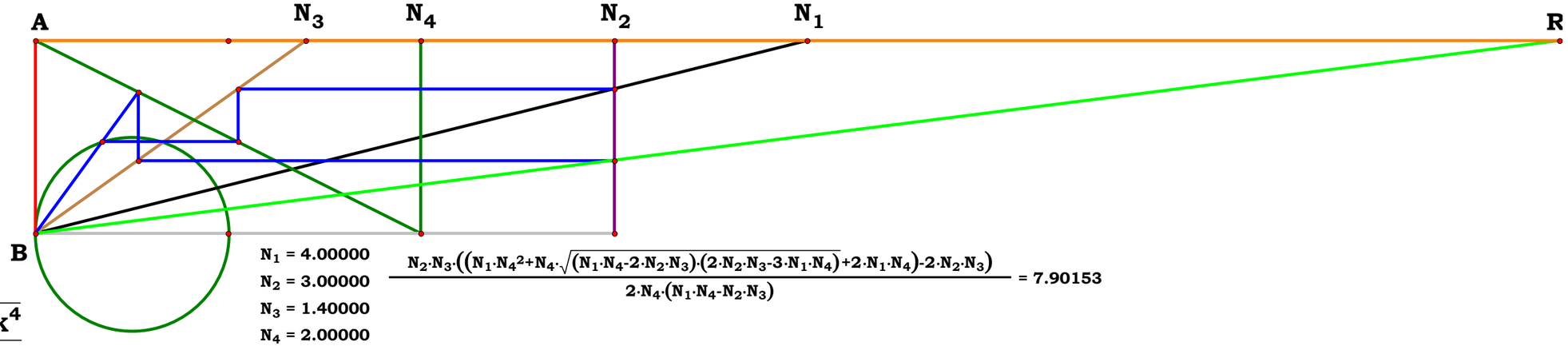
$BH := \frac{AJ \cdot N_4}{AJ + N_4}$

$GH := \frac{BH}{N_3}$

$R := \frac{N_2}{GH}$

$R = 5.123112$

$Boolean := \frac{EK^2 + \sqrt{EK^4}}{2\sqrt{EK^4}}$



$\frac{N_2 \cdot N_3 \cdot \left(\left(N_1 \cdot N_4^2 + N_4 \cdot \sqrt{\left(N_1 \cdot N_4 - 2 \cdot N_2 \cdot N_3\right) \cdot \left(2 \cdot N_2 \cdot N_3 - 3 \cdot N_1 \cdot N_4\right)} + 2 \cdot N_1 \cdot N_4\right) - 2 \cdot N_2 \cdot N_3\right)}{2 \cdot N_4 \cdot \left(N_1 \cdot N_4 - N_2 \cdot N_3\right)} = 7.90153$

Definitions.

$Boolean = 1$

$R - \frac{N_2 \cdot N_3 \cdot \left[N_1 \cdot N_4^2 + N_4 \cdot \sqrt{\left(N_1 \cdot N_4 - 2 \cdot N_2 \cdot N_3\right) \cdot \left(2 \cdot N_2 \cdot N_3 - 3 \cdot N_1 \cdot N_4\right)} + 2 \cdot N_1 \cdot N_4 - 2 \cdot N_2 \cdot N_3\right]}{2 \cdot N_4 \cdot \left(N_1 \cdot N_4 - N_2 \cdot N_3\right)} = 0$

$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$R - \frac{N_u \cdot \left[2 \cdot A \cdot D^2 - N_u \cdot \sqrt{(B \cdot C - 2 \cdot A \cdot D) \cdot (2 \cdot A \cdot D - 3 \cdot B \cdot C)} - B \cdot C \cdot \left(2 \cdot D + N_u\right)\right]}{2 \cdot B \cdot C \cdot (A \cdot D - B \cdot C)} = 0$

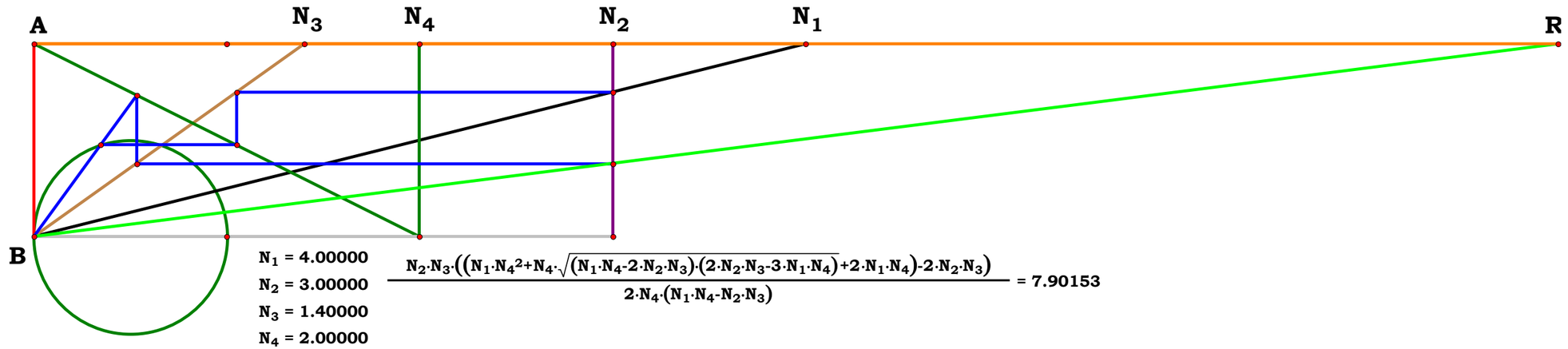
$W := 20 \quad X := 19 \quad Y := 18 \quad Z := 17 \quad m := \frac{W}{N_1} \quad n := \frac{X}{N_2} \quad o := \frac{Y}{N_3} \quad p := \frac{Z}{N_4}$

$N_1 - \frac{W}{m} = 0$

$N_2 - \frac{X}{n} = 0$

$N_3 - \frac{Y}{o} = 0$

$N_4 - \frac{Z}{p} = 0$



$N_1 = 4.00000$

$N_2 = 3.00000$

$N_3 = 1.40000$

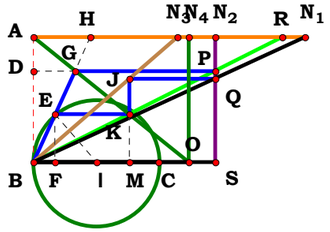
$N_4 = 2.00000$

$R = 7.90153$

$$\frac{N_2 \cdot N_3 \cdot \left(\left(N_1 \cdot N_4^2 + N_4 \cdot \sqrt{\left(N_1 \cdot N_4 - 2 \cdot N_2 \cdot N_3 \right) \cdot \left(2 \cdot N_2 \cdot N_3 - 3 \cdot N_1 \cdot N_4 \right)} + 2 \cdot N_1 \cdot N_4 \right) - 2 \cdot N_2 \cdot N_3 \right)}{2 \cdot N_4 \cdot \left(N_1 \cdot N_4 - N_2 \cdot N_3 \right)} = 7.90153$$

$$R - \frac{X \cdot Y \cdot \left[Z \cdot \sqrt{(W \cdot Z \cdot n \cdot o - 2 \cdot X \cdot Y \cdot m \cdot p) \cdot (2 \cdot X \cdot Y \cdot m \cdot p - 3 \cdot W \cdot Z \cdot n \cdot o)} + W \cdot Z^2 \cdot n \cdot o - 2 \cdot X \cdot Y \cdot m \cdot p^2 + 2 \cdot W \cdot Z \cdot n \cdot o \cdot p \right]}{2 \cdot Z \cdot n \cdot o \cdot (W \cdot Z \cdot n \cdot o - X \cdot Y \cdot m \cdot p)} = 0$$

3OBT8R6



$N_1 = 2.17172$
$N_2 = 1.45455$
$N_3 = 1.15152$
$N_4 = 1.24242$
$R = 1.99216$

Unit. $AB := 1$ **Given.** $N_1 := 2.17172$ $N_2 := 1.45455$ $N_3 := 1.15152$ $N_4 := 1.24242$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

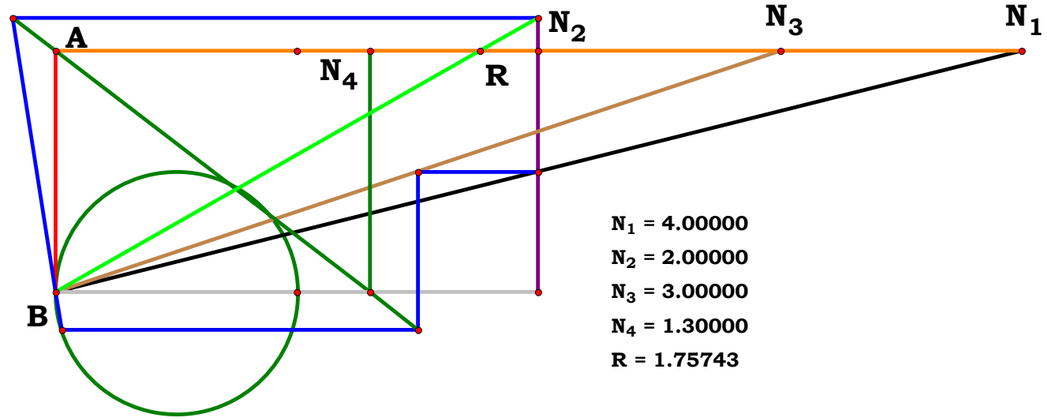
Descriptions.

$QS := \frac{N_2}{N_1}$ $BM := N_3 \cdot QS$ $KM := \frac{N_4 - BM}{N_4}$

$BF := \frac{1}{2} - \sqrt{\left(\frac{1}{2}\right)^2 - KM^2}$ $AH := \frac{BF}{KM}$ $BD := \frac{N_4}{N_4 + AH}$

$R := \frac{N_2}{BD}$ $R = 1.992156$

$Boolean := \frac{BF^2 + \sqrt{BF^4}}{2\sqrt{BF^4}}$



$N_1 = 4.00000$
$N_2 = 2.00000$
$N_3 = 3.00000$
$N_4 = 1.30000$
$R = 1.75743$

Definitions.

$$\frac{N_1 \cdot N_2 \cdot N_4^2 \cdot (N_1 + 2 \cdot (N_1 \cdot N_4 - N_2 \cdot N_3)) - 2 \cdot N_1 \cdot N_4 \cdot \sqrt{(N_1 \cdot N_4 - 2 \cdot N_2 \cdot N_3) \cdot (2 \cdot N_2 \cdot N_3 - 3 \cdot N_1 \cdot N_4)}}{2 \cdot N_1 \cdot N_4^2 \cdot (N_1 \cdot N_4 - N_2 \cdot N_3)} - R = 0.00000$$

Boolean $= 1$

$$R - \frac{N_1 \cdot N_2 \cdot N_4^2 \cdot \left[N_1 + 2 \cdot \left(N_1 \cdot N_4 - N_2 \cdot N_3\right)\right] - N_2 \cdot \left(N_1 \cdot N_4\right) \cdot \sqrt{\left(N_1 \cdot N_4 - 2 \cdot N_2 \cdot N_3\right) \cdot \left(2 \cdot N_2 \cdot N_3 - 3 \cdot N_1 \cdot N_4\right)}}{2 \cdot N_1 \cdot N_4^2 \cdot \left(N_1 \cdot N_4 - N_2 \cdot N_3\right)} = 0$$

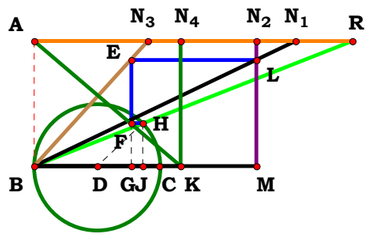
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{D \cdot \sqrt{(B \cdot C - 2 \cdot A \cdot D) \cdot (2 \cdot A \cdot D - 3 \cdot B \cdot C)} - B \cdot C \cdot D + 2 \cdot N_u \cdot (A \cdot D - B \cdot C)}{2 \cdot B \cdot (A \cdot D - B \cdot C)} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{X \cdot \left[2 \cdot W \cdot Z^2 \cdot n \cdot o - p \cdot \sqrt{(W \cdot Z \cdot n \cdot o - 2 \cdot X \cdot Y \cdot m \cdot p) \cdot (2 \cdot X \cdot Y \cdot m \cdot p - 3 \cdot W \cdot Z \cdot n \cdot o)} - 2 \cdot X \cdot Y \cdot Z \cdot m \cdot p + W \cdot Z \cdot n \cdot o \cdot p\right]}{2 \cdot Z \cdot n \cdot (W \cdot Z \cdot n \cdot o - X \cdot Y \cdot m \cdot p)} = 0$$

3OBT8R7



$N_1 = 2.09091$
$N_2 = 1.77778$
$N_3 = 0.90909$
$N_4 = 1.17172$
$R = 2.54547$

Unit. $AB := 1$ Given. $N_1 := 2.09091$ $N_2 := 1.77778$ $N_3 := .90909$ $N_4 := 1.17172$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

$LM := \frac{N_2}{N_1}$ $BG := N_3 \cdot LM$

$FG := \frac{N_4 - BG}{N_4}$ $BJ := \frac{1}{2} + \sqrt{\left(\frac{1}{2}\right)^2 - FG^2}$

$R := \frac{BJ}{FG}$ $R = 2.545454$

$Boolean := \frac{BJ^2 + \sqrt{BJ^4}}{2\sqrt{BJ^4}}$

Definitions.

Boolean $= 1$

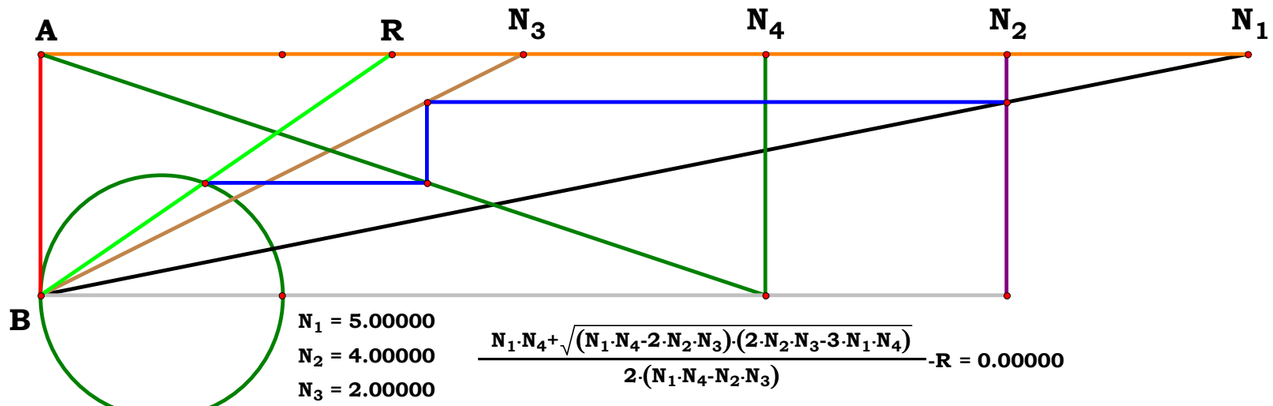
$$R - \frac{\sqrt{\left(N_1 \cdot N_4 - 2 \cdot N_2 \cdot N_3\right) \cdot \left(2 \cdot N_2 \cdot N_3 - 3 \cdot N_1 \cdot N_4\right)} + N_1 \cdot N_4}{2 \cdot \left(N_1 \cdot N_4 - N_2 \cdot N_3\right)} = 0$$

$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{\sqrt{(B \cdot C - 2 \cdot A \cdot D) \cdot (2 \cdot A \cdot D - 3 \cdot B \cdot C)} + B \cdot C}{2 \cdot (B \cdot C - A \cdot D)} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{\sqrt{(W \cdot Z \cdot n \cdot o - 2 \cdot X \cdot Y \cdot m \cdot p) \cdot (2 \cdot X \cdot Y \cdot m \cdot p - 3 \cdot W \cdot Z \cdot n \cdot o)} + W \cdot Z \cdot n \cdot o}{2 \cdot (W \cdot Z \cdot n \cdot o - X \cdot Y \cdot m \cdot p)} = 0$$

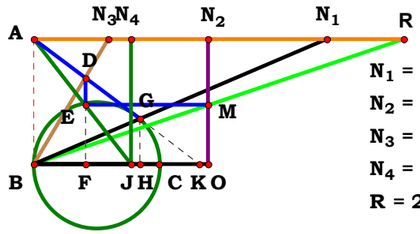


$N_1 = 5.00000$
$N_2 = 4.00000$
$N_3 = 2.00000$
$N_4 = 3.00000$

$\frac{N_1 \cdot N_4 + \sqrt{(N_1 \cdot N_4 - 2 \cdot N_2 \cdot N_3) \cdot (2 \cdot N_2 \cdot N_3 - 3 \cdot N_1 \cdot N_4)}}{2 \cdot (N_1 \cdot N_4 - N_2 \cdot N_3)} - R = 0.00000$

$R = 1.45608$

3OBT8R8



$N_1 = 2.34343$
$N_2 = 1.39394$
$N_3 = 0.59596$
$N_4 = 0.77778$
$R = 2.95561$

Unit. $AB := 1$ **Given.** $N_1 := 2.34343$ $N_2 := 1.39394$ $N_3 := .59596$ $N_4 := .77778$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

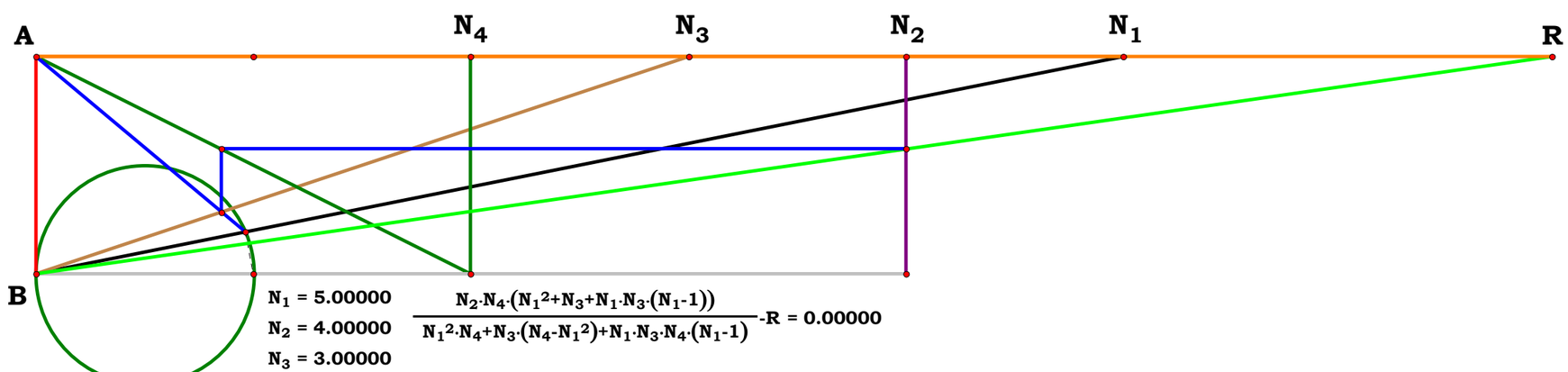
$BN_1 := \sqrt{AB^2 + N_1^2}$ $BG := \frac{N_1}{BN_1}$

$GH := \frac{AB \cdot BG}{BN_1}$ $BH := N_1 \cdot GH$

$BK := \frac{BH}{1 - GH}$ $BF := \frac{N_3 \cdot BK}{N_3 + BK}$

$EF := \frac{N_4 - BF}{N_4}$ $R := \frac{N_2}{EF}$

$R = 2.955605$



$N_1 = 5.00000$
$N_2 = 4.00000$
$N_3 = 3.00000$
$N_4 = 2.00000$

$\frac{N_2 \cdot N_4 \cdot (N_1^2 + N_3 + N_1 \cdot N_3 \cdot (N_1 - 1))}{N_1^2 \cdot N_4 + N_3 \cdot (N_4 - N_1^2) + N_1 \cdot N_3 \cdot N_4 \cdot (N_1 - 1)} - R = 0.00000$

$R = 6.97030$

Definitions.

$$R - \frac{N_2 \cdot N_4 \cdot \left[N_1^2 + N_3 + N_1 \cdot N_3 \cdot (N_1 - 1)\right]}{N_1^2 \cdot N_4 + N_3 \cdot \left(N_4 - N_1^2\right) + N_1 \cdot N_3 \cdot N_4 \cdot (N_1 - 1)} = 0$$

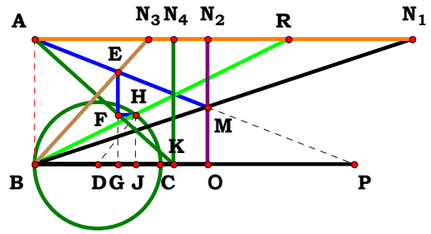
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{N_u \cdot \left(A^2 - A \cdot N_u + N_u^2 + C \cdot N_u\right)}{B \cdot \left(A^2 + N_u^2 - A \cdot N_u + C \cdot N_u - D \cdot N_u\right)} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{W^2 \cdot X \cdot Y \cdot Z + X \cdot Y \cdot Z \cdot m^2 + W^2 \cdot X \cdot Z \cdot o - W \cdot X \cdot Y \cdot Z \cdot m}{n \cdot \left(W^2 \cdot Y \cdot Z + Y \cdot Z \cdot m^2 - W^2 \cdot Y \cdot p + W^2 \cdot Z \cdot o - W \cdot Y \cdot Z \cdot m\right)} = 0$$

3OBT8R9



$N_1 = 3.02020$
$N_2 = 1.38384$
$N_3 = 0.90909$
$N_4 = 1.11111$
$R = 2.02852$

Unit. $AB := 1$ **Given.** $N_1 := 3.02020$ $N_2 := 1.38384$ $N_3 := .90909$ $N_4 := 1.11111$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

$MO := \frac{N_2}{N_1}$ $BP := \frac{N_2}{1 - MO}$

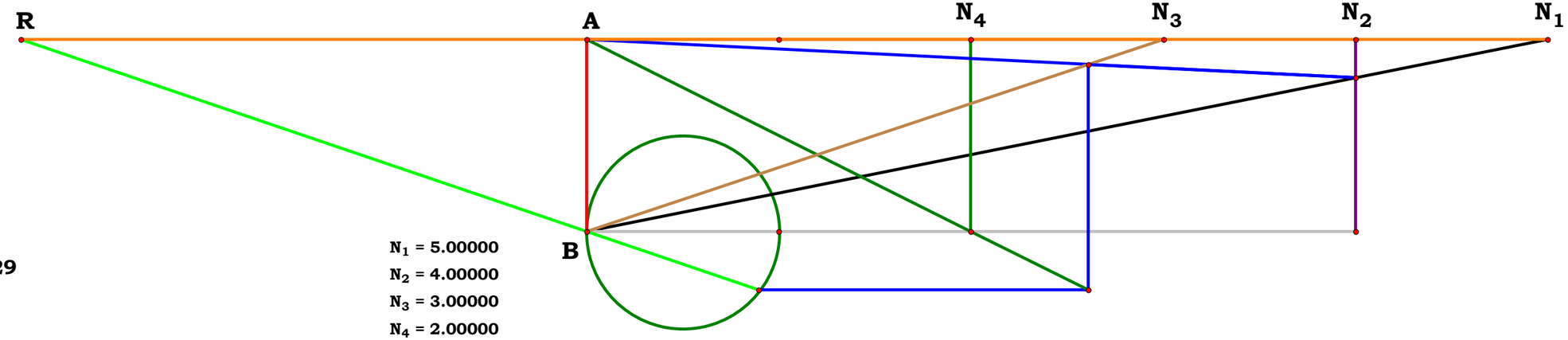
$BG := \frac{N_3 \cdot BP}{N_3 + BP}$

$FG := \frac{N_4 - BG}{N_4}$

$BJ := \frac{1}{2} + \sqrt{\left(\frac{1}{2}\right)^2 - FG^2}$

$R := \frac{BJ}{FG}$ $R = 2.028529$

$Boolean := \frac{BJ^2 + \sqrt{BJ^4}}{2\sqrt{BJ^4}}$



$N_1 = 5.00000$
$N_2 = 4.00000$
$N_3 = 3.00000$
$N_4 = 2.00000$
$R = -2.94631$

$$\frac{(N_1 \cdot N_4 \cdot (N_2 + N_3) - N_2 \cdot N_3 \cdot N_4) + \sqrt{((N_3 \cdot N_4 \cdot (N_1 - N_2) - N_1 \cdot N_2 \cdot (2 \cdot N_3 - N_4)) \cdot (2 \cdot N_1 \cdot N_2 \cdot N_3 - 3 \cdot N_4 \cdot ((N_1 \cdot N_2 + N_1 \cdot N_3) - N_2 \cdot N_3)))}}{(2 \cdot (N_3 \cdot N_4 \cdot (N_1 - N_2) - N_1 \cdot N_2 \cdot (N_3 - N_4)))} - R = 0.00000$$

Definitions.

$Boolean = 1$

$$R - \frac{\sqrt{\left[N_3 \cdot N_4 \cdot (N_1 - N_2) - N_1 \cdot N_2 \cdot (2 \cdot N_3 - N_4)\right] \cdot \left[2 \cdot N_1 \cdot N_2 \cdot N_3 - 3 \cdot N_4 \cdot (N_1 \cdot N_2 + N_1 \cdot N_3 - N_2 \cdot N_3)\right]} + N_1 \cdot N_4 \cdot (N_2 + N_3) - N_2 \cdot N_3 \cdot N_4}{2 \cdot \left[N_3 \cdot N_4 \cdot (N_1 - N_2) - N_1 \cdot N_2 \cdot (N_3 - N_4)\right]} = 0$$

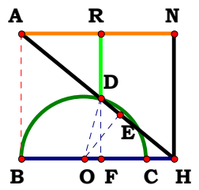
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{A - B - C - \sqrt{(B - A + C - 2 \cdot D) \cdot (3 \cdot A - 3 \cdot B - 3 \cdot C + 2 \cdot D)}}{2 \cdot (A - B - C + D)} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{\sqrt{(W \cdot X \cdot Z \cdot o - 2 \cdot W \cdot X \cdot Y \cdot p + W \cdot Y \cdot Z \cdot n - X \cdot Y \cdot Z \cdot m) \cdot (2 \cdot W \cdot X \cdot Y \cdot p - 3 \cdot W \cdot X \cdot Z \cdot o - 3 \cdot W \cdot Y \cdot Z \cdot n + 3 \cdot X \cdot Y \cdot Z \cdot m)} + W \cdot X \cdot Z \cdot o + W \cdot Y \cdot Z \cdot n - X \cdot Y \cdot Z \cdot m}{2 \cdot (W \cdot X \cdot Z \cdot o - W \cdot X \cdot Y \cdot p + W \cdot Y \cdot Z \cdot n - X \cdot Y \cdot Z \cdot m)} = 0$$

3OBT9R0



N = 1.22222
R = 0.63319

Unit. $AB := 1$ Given. $N := 1.22222$

$N_u := 3$ $A := \frac{N_u}{N}$ $Z := 20$ $q := \frac{Z}{N}$

Descriptions.

$BH := N$ $BO := \frac{AB}{2}$ $DO := BO$ $AH := \sqrt{AB^2 + N^2}$

$HO := BH - BO$ $EH := \frac{BH \cdot HO}{AH}$ $EO := \frac{AB \cdot HO}{AH}$

$DE := \sqrt{DO^2 - EO^2}$ $DH := EH + DE$ $FH := \frac{BH \cdot DH}{AH}$

$R := BH - FH$ $R = 0.633191$

$$Boolean := \frac{DE^2 + \sqrt{DE^4}}{2\sqrt{DE^4}}$$

Definitions.

Boolean = 1

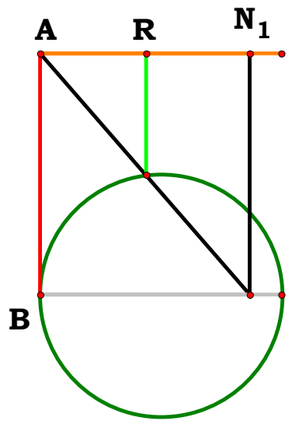
$$R - \frac{N^2 + 2N - N\left(4 \cdot N - 3 \cdot N^2\right)^{\frac{1}{2}}}{2N^2 + 2} = 0$$

$$N - \frac{N_u}{A} = 0$$

$$R - \frac{N_u \cdot \left[2 \cdot A + N_u - \sqrt{N_u \cdot \left(4 \cdot A - 3 \cdot N_u\right)}\right]}{2 \cdot \left(A^2 + {N_u}^2\right)} = 0$$

$$N - \frac{Z}{q} = 0$$

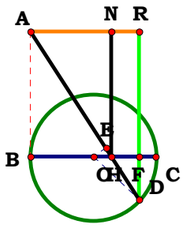
$$R - \frac{Z \cdot \left[Z + 2 \cdot q - \sqrt{Z \cdot (4 \cdot q - 3 \cdot Z)}\right]}{2 \cdot \left(Z^2 + q^2\right)} = 0$$



$N_1 = 0.86667$
$R = 0.43681$

$$\frac{\left(N_1{}^2 + 2 \cdot N_1\right) - N_1 \cdot \left(4 \cdot N_1 - 3 \cdot N_1{}^2\right)^{\frac{1}{2}}}{2 \cdot N_1{}^2 + 2} - R = 0.00000$$

3OBT9R1



Unit. $AB := 1$ Given. $N := .64646$

$N = 0.64646$
$R = 0.86640$

$N_u := 3$ $A := \frac{N_u}{N}$ $Z := 20$ $q := \frac{Z}{N}$

Descriptions.

$BH := N$ $BO := \frac{AB}{2}$

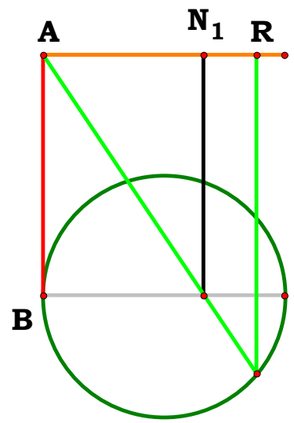
$DO := BO$ $AH := \sqrt{AB^2 + N^2}$

$HO := BH - BO$ $EH := \frac{BH \cdot HO}{AH}$

$EO := \frac{AB \cdot HO}{AH}$ $DE := \sqrt{DO^2 - EO^2}$

$DH := EH - DE$ $FH := \frac{BH \cdot DH}{AH}$

$R := BH - FH$ $R = 0.8664$



$N_1 = 0.66667$
$R = 0.88185$

$\frac{N_1^2+2\cdot N_1+N_1\cdot\sqrt{4\cdot N_1-3\cdot N_1^2}}{2\cdot N_1^2+2} - R = 0.00000$

Definitions.

$$R - \frac{N^2 + 2N + N\left(4 \cdot N - 3 \cdot N^2\right)^{\frac{1}{2}}}{2N^2 + 2} = 0$$

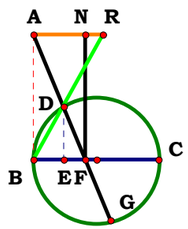
$$N - \frac{N_u}{A} = 0$$

$$R - \frac{N_u \cdot \left[2 \cdot A + N_u + \sqrt{N_u \cdot \left(4 \cdot A - 3 \cdot N_u\right)}\right]}{2 \cdot \left(A^2 + {N_u}^2\right)} = 0$$

$$N - \frac{Z}{q} = 0$$

$$R - \frac{Z \cdot \left[Z + 2 \cdot q + \sqrt{Z \cdot (4 \cdot q - 3 \cdot Z)}\right]}{2 \cdot \left(Z^2 + q^2\right)} = 0$$

3OBT9R2



N = 0.41414
R = 0.55859

Unit. $AB := 1$ **Given.** $N := .41414$

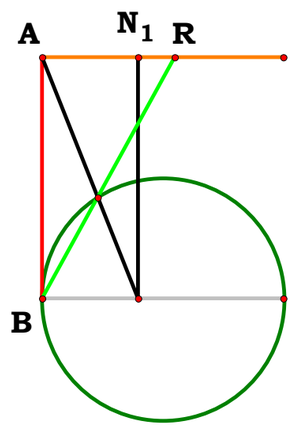
$N_u := 3$ $A := \frac{N_u}{N}$ $Z := 20$ $q := \frac{Z}{N}$

Descriptions.

$$BE := \frac{N^2 + 2N - N\left(4 \cdot N - 3 \cdot N^2\right)^{\frac{1}{2}}}{2N^2 + 2}$$

$CE := AB - BE$ $DE := \sqrt{BE \cdot CE}$

$R := \frac{BE \cdot AB}{DE}$ $R = 0.558594$



$N_1 = 0.40000$

$R = 0.54858$

$$\frac{(N_1{}^2+2\cdot N_1)-N_1\cdot\sqrt{4\cdot N_1-3\cdot N_1{}^2}}{(2\cdot N_1{}^2-N_1)+\sqrt{4\cdot N_1-3\cdot N_1{}^2}}-R = 0.00000$$

Definitions.

$$R - \frac{N^2 + 2N - N\cdot\sqrt{4N - 3N^2}}{2N^2 - N + \sqrt{4N - 3N^2}} = 0$$

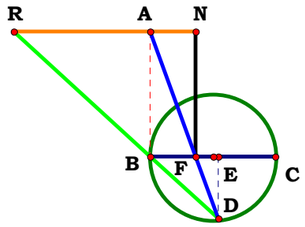
$$N - \frac{N_u}{A} = 0$$

$$R - \frac{N_u\cdot\left[\sqrt{N_u\cdot\left(4\cdot A - 3\cdot N_u\right)} - N_u - 2\cdot A\right]}{A\cdot N_u - 2\cdot N_u{}^2 - A\cdot\sqrt{N_u\cdot\left(4\cdot A - 3\cdot N_u\right)}} = 0$$

$$N - \frac{Z}{q} = 0$$

$$R - \frac{Z\cdot\left[Z + 2\cdot q - \sqrt{Z\cdot(4\cdot q - 3\cdot Z)}\right]}{2\cdot Z^2 - Z\cdot q + q\cdot\sqrt{Z\cdot(4\cdot q - 3\cdot Z)}} = 0$$

3OBT9R3



N = 0.36364
R = -1.09384

Unit. $AB := 1$ Given. $N := .36364$

$N_u := 3$ $A := \frac{N_u}{N}$ $Z := 20$ $q := \frac{Z}{N}$

Descriptions.

$$BE := \frac{N^2 + 2N + N\left(4 \cdot N - 3 \cdot N^2\right)^{\frac{1}{2}}}{2N^2 + 2}$$

$CE := AB - BE$ $DE := \frac{N - BE}{\sqrt{(N - BE)^2}} \cdot \sqrt{BE \cdot CE}$

$R := \frac{BE \cdot AB}{DE}$ $R = -1.093848$

Definitions.

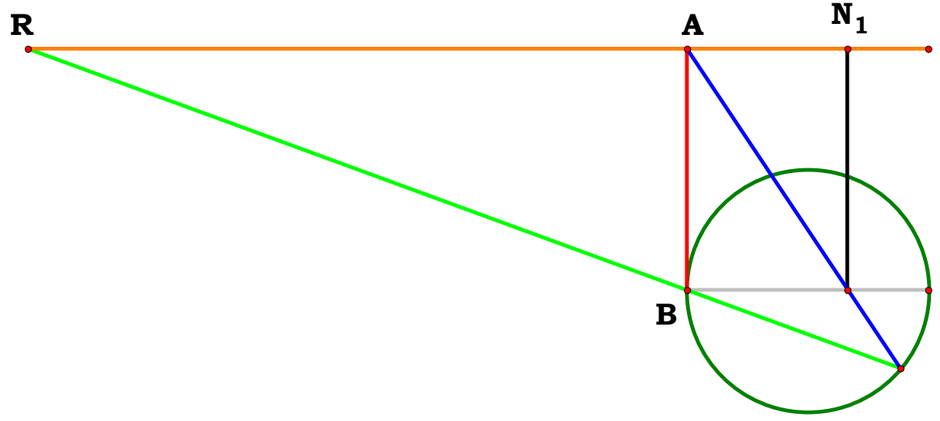
$$R - \frac{2 \cdot N + N^2 + N \cdot \sqrt{4 \cdot N - 3 \cdot N^2}}{2 \cdot N^2 - N - \sqrt{4 \cdot N - 3 \cdot N^2}} = 0$$

$$N - \frac{N_u}{A} = 0$$

$$R - \frac{N_u \cdot \left[2 \cdot A + N_u + \sqrt{N_u \cdot \left(4 \cdot A - 3 \cdot N_u\right)}\right]}{2 \cdot {N_u}^2 - A \cdot \sqrt{N_u \cdot \left(4 \cdot A - 3 \cdot N_u\right)} - A \cdot N_u} = 0$$

$$N - \frac{Z}{q} = 0$$

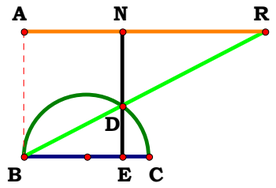
$$R - \frac{Z \cdot \left[Z + 2 \cdot q + \sqrt{Z \cdot (4 \cdot q - 3 \cdot Z)}\right]}{2 \cdot Z^2 - Z \cdot q - q \cdot \sqrt{Z \cdot (4 \cdot q - 3 \cdot Z)}} = 0$$



$N_1 = 0.66667$
R = -2.73205

$$\frac{2 \cdot N_1 + {N_1}^2 + N_1 \cdot \sqrt{4 \cdot N_1 - 3 \cdot {N_1}^2}}{2 \cdot {N_1}^2 - N_1 - \sqrt{4 \cdot N_1 - 3 \cdot {N_1}^2}} - R = 0.00000$$

3OBT9R4



N = 0.78788
R = 1.92725

Unit. $AB := 1$ Given. $N := .78788$

$N_u := 3$ $A := \frac{N_u}{N}$ $Z := 20$ $q := \frac{Z}{N}$

Descriptions.

$BE := N$ $CE := AB - BE$

$DE := \sqrt{BE \cdot CE}$ $R := \frac{BE}{DE}$

$R = 1.927255$

Definitions.

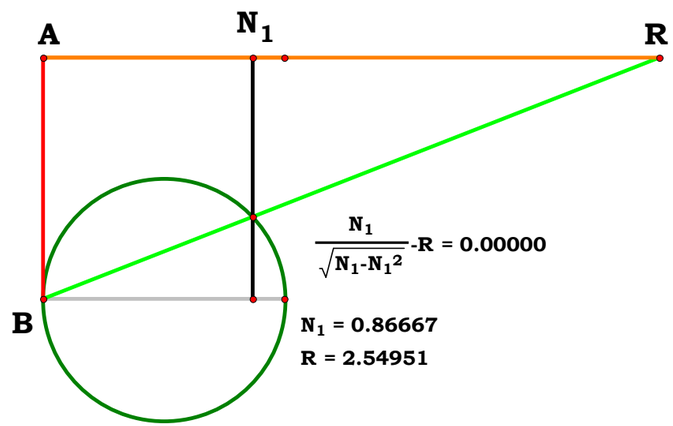
$$R - \frac{N}{\left(N - N^2\right)^{\frac{1}{2}}} = 0$$

$$N - \frac{N_u}{A} = 0$$

$$R - \frac{N_u}{\sqrt{N_u \cdot \left(A - N_u\right)}} = 0$$

$$N - \frac{Z}{q} = 0$$

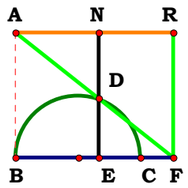
$$R - \frac{Z}{\sqrt{Z \cdot (q - Z)}} = 0$$



$\frac{N_1}{\sqrt{N_1 - N_1^2}} - R = 0.00000$

$N_1 = 0.86667$
$R = 2.54951$

3OBT9R5



N = 0.66667

R = 1.26120

Unit. $AB := 1$ **Given.** $N := .66667$

$N_u := 3$ $A := \frac{N_u}{N}$ $Z := 20$ $q := \frac{Z}{N}$

Descriptions.

$BE := N$ $CE := AB - BE$

$DE := \sqrt{BE \cdot CE}$

$DN := AB - DE$ $R := \frac{N}{DN}$

$R = 1.261207$

Definitions.

$$R - \frac{N}{1 - \left(N - N^2\right)^{\frac{1}{2}}} = 0$$

$$N - \frac{N_u}{A} = 0$$

$$R - \frac{N_u}{A - \sqrt{N_u \cdot \left(A - N_u\right)}} = 0$$

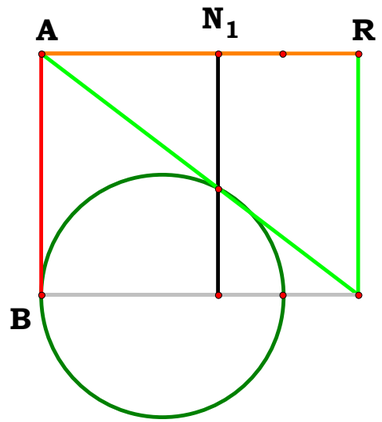
$$N - \frac{Z}{q} = 0$$

$$R - \frac{Z}{q - \sqrt{Z \cdot (q - Z)}} = 0$$

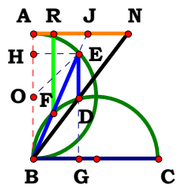
$N_1 = 0.73333$

$R = 1.31473$

$\frac{N_1}{1-\sqrt{N_1-N_1^2}} - R = 0.00000$



3OBT10AR0



N = 0.75758
R = 0.15790

Unit. $AB := 1$ Given. $N := .75758$

$N_u := 3$ $A := \frac{N_u}{N}$ $Z := 20$ $q := \frac{Z}{N}$

Descriptions.

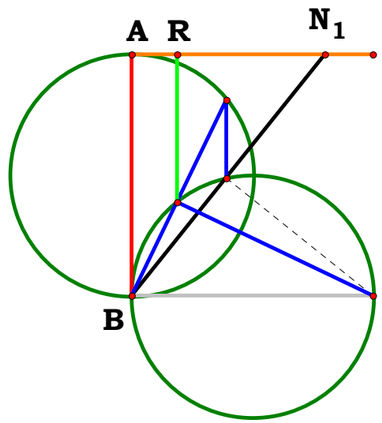
$$BG := \frac{N^2}{N^2+1} \qquad HO := \sqrt{\left(\frac{AB}{2}\right)^2 - BG^2}$$

$$BH := \frac{AB}{2} + HO \qquad AJ := \frac{BG \cdot AB}{BH}$$

$$R := \frac{AJ^2}{AJ^2+1} \qquad R = 0.157899$$

Definitions.

$$R - \frac{N^2 - \sqrt{2\cdot N^2 - 3\cdot N^4 + 1} + 1}{2N^2+2} = 0$$



$N_1 = 0.80000$
$R = 0.18741$
$\frac{\left(N_1{}^2 - \sqrt{\left(2\cdot N_1{}^2 - 3\cdot N_1{}^4\right)+1}\right)+1}{2\cdot N_1{}^2+2}$ -R = 0.00000

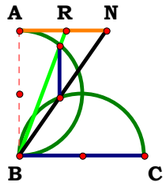
$$N - \frac{N_u}{A} = 0$$

$$R - \frac{A^2 - \sqrt{\left(A+N_u\right)\cdot\left(A^2+3\cdot N_u{}^2\right)\cdot\left(A-N_u\right)} + N_u{}^2}{2\cdot\left(A^2+N_u{}^2\right)} = 0$$

$$N - \frac{Z}{q} = 0$$

$$R - \frac{Z^2+q^2-\sqrt{2\cdot Z^2\cdot q^2 - 3\cdot Z^4 + q^4}}{2\cdot\left(Z^2+q^2\right)} = 0$$

3OBT10AR1



N = 0.69697
R = 0.37225

Unit. $AB := 1$ Given. $N := .69697$

$N_u := 3$ $A := \frac{N_u}{N}$ $Z := 20$ $q := \frac{Z}{N}$

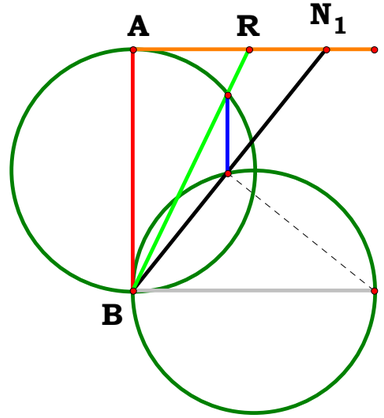
$$R := \frac{2N^2}{N^2 + \left(2 \cdot N^2 - 3 \cdot N^4 + 1\right)^{\frac{1}{2}} + 1}$$

$R = 0.372253$

Definitions.

$$R - \frac{N^2 - \sqrt{2 \cdot N^2 - 3 \cdot N^4 + 1} + 1}{2N^2} = 0$$

$$N - \frac{N_u}{A} = 0$$



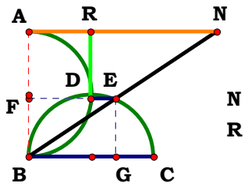
$N_1 = 0.80000$
$R = 0.48025$
$\frac{\left(N_1{}^2 - \sqrt{\left(2 \cdot N_1{}^2 - 3 \cdot N_1{}^4\right) + 1}\right) + 1}{2 \cdot N_1{}^2} - R = 0.00000$

$$R - \frac{A^2 - \sqrt{\left(A + N_u\right) \cdot \left(A^2 + 3 \cdot N_u{}^2\right) \cdot \left(A - N_u\right)} + N_u{}^2}{2 \cdot N_u{}^2} = 0$$

$$N - \frac{Z}{q} = 0$$

$$R - \frac{Z^2 + q^2 - \sqrt{2 \cdot Z^2 \cdot q^2 - 3 \cdot Z^4 + q^4}}{2 \cdot Z^2} = 0$$

3OBT10AR2



N = 1.50505
R = 0.49847

Unit. $AB := 1$ Given. $N := 1.50505$

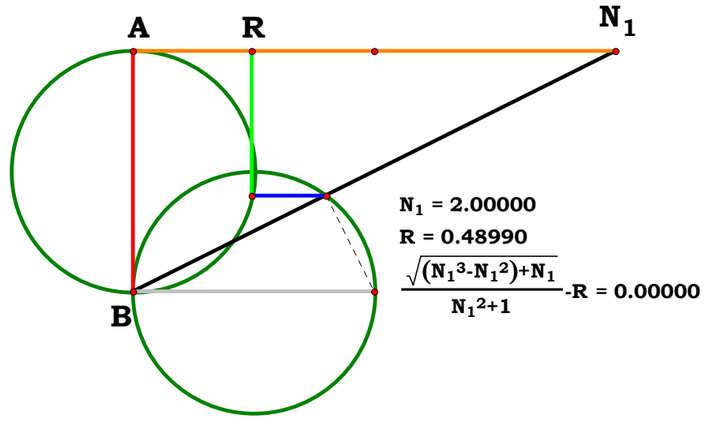
$N_u := 3$ $A := \frac{N_u}{N}$ $Z := 20$ $q := \frac{Z}{N}$

Descriptions.

$EG := \frac{N}{N^2 + 1}$ $BF := EG$

$AF := AB - BF$ $DF := \sqrt{BF \cdot AF}$

$R := DF$ $R = 0.498472$



$N_1 = 2.00000$
$R = 0.48990$
$\frac{\sqrt{(N_1{}^3 - N_1{}^2) + N_1}}{N_1{}^2 + 1} - R = 0.00000$

Definitions.

$$R - \frac{\left(N^3 - N^2 + N\right)^{\frac{1}{2}}}{N^2 + 1} = 0$$

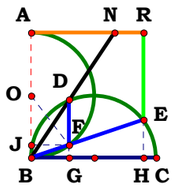
$$N - \frac{N_u}{A} = 0$$

$$R - \frac{\sqrt{A \cdot N_u \cdot \left(A^2 - A \cdot N_u + N_u{}^2\right)}}{A^2 + N_u{}^2} = 0$$

$$N - \frac{Z}{q} = 0$$

$$R - \frac{\sqrt{q} \cdot \sqrt{Z \cdot \left(Z^2 - Z \cdot q + q^2\right)}}{Z^2 + q^2} = 0$$

3OBT10AR3



N = 0.66667
R = 0.89411

Unit. $AB := 1$ Given. $N := .66667$

$N_u := 3$ $A := \frac{N_u}{N}$ $Z := 20$ $q := \frac{Z}{N}$

Descriptions.

$$BG := \frac{N^2}{N^2+1} \qquad FJ := BG$$

$$OJ := \sqrt{\left(\frac{AB}{2}\right)^2 - FJ^2} \qquad AJ := \frac{AB}{2} + OJ$$

$$BH := AJ \qquad R := BH$$

$$R = 0.894112$$

Definitions.

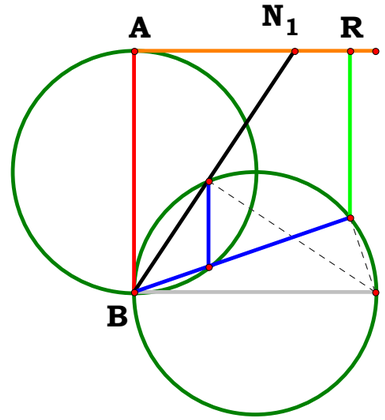
$$R - \frac{N^2 + \sqrt{2\cdot N^2 - 3\cdot N^4 + 1} + 1}{2\cdot\left(N^2+1\right)} = 0$$

$$N - \frac{N_u}{A} = 0$$

$$R - \frac{A^2 + \sqrt{\left(A+N_u\right)\cdot\left(A^2+3\cdot {N_u}^2\right)\cdot\left(A-N_u\right)} + {N_u}^2}{2\cdot\left(A^2+{N_u}^2\right)} = 0$$

$$N - \frac{Z}{q} = 0$$

$$R - \frac{Z^2 + q^2 + \sqrt{2\cdot Z^2\cdot q^2 - 3\cdot Z^4 + q^4}}{2\cdot\left(Z^2+q^2\right)} = 0$$



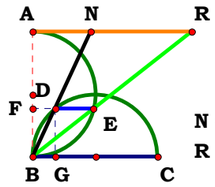
$N_1 = 0.66667$

$R = 0.89411$

$$\frac{N_1{}^2 + \sqrt{\left(2\cdot N_1{}^2 - 3\cdot N_1{}^4\right)+1}+1}{2\cdot\left(N_1{}^2+1\right)} - R = 0.00000$$

$$\frac{2\cdot N_1{}^4}{\left(N_1{}^2+1\right)\cdot\left(\left(N_1{}^2 - \sqrt{\left(2\cdot N_1{}^2 - 3\cdot N_1{}^4\right)+1}\right)+1\right)} - R = 0.00000$$

3OBT10AR4



N = 0.46465
R = 1.27154

Unit. $AB := 1$ Given. $N := .46465$

$N_u := 3$ $A := \frac{N_u}{N}$ $Z := 20$ $q := \frac{Z}{N}$

Descriptions.

$BN := \sqrt{AB^2 + N^2}$ $BD := \frac{N}{BN}$

$DG := \frac{AB \cdot BD}{BN}$ $FE := \sqrt{DG \cdot (AB - DG)}$

$R := \frac{FE \cdot AB}{DG}$ $R = 1.271537$

Definitions

$$R - \frac{\sqrt{\left(N^3 - N^2 + N\right)}}{N} = 0$$

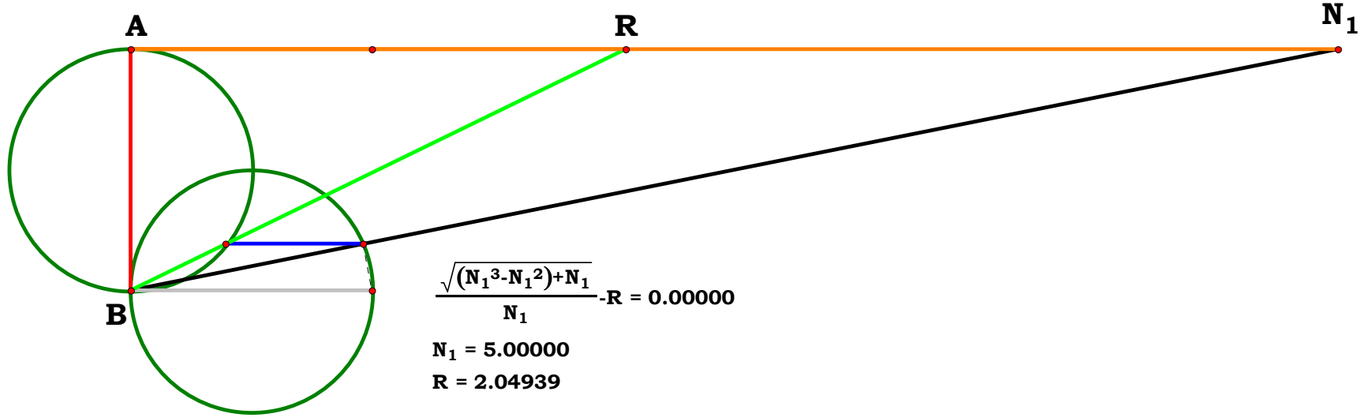
N_u

$$N - \frac{N_u}{A} = 0$$

$$R - \frac{\sqrt{N_u \cdot \left(A^2 - A \cdot N_u + N_u^2\right)}}{\sqrt{A} \cdot N_u} = 0$$

$$N - \frac{Z}{q} = 0$$

$$R - \frac{\sqrt{Z \cdot \left(Z^2 - Z \cdot q + q^2\right)}}{Z \cdot \sqrt{q}} = 0$$

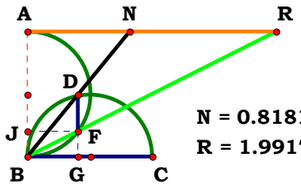


$\frac{\sqrt{(N_1{}^3 - N_1{}^2) + N_1}}{N_1}$ -R = 0.00000

$N_1 = 5.00000$

R = 2.04939

3OBT10AR5



N = 0.81818
R = 1.99176

Unit. $AB := 1$ Given. $N := .81818$

$N_u := 3$ $A := \frac{N_u}{N}$ $Z := 20$ $q := \frac{Z}{N}$

Descriptions.

$BN := \sqrt{AB^2 + N^2}$ $BD := \frac{N}{BN}$

$BG := \frac{N \cdot BD}{BN}$

$FG := \frac{AB}{2} - \sqrt{\left(\frac{AB}{2}\right)^2 - BG^2}$ $R := \frac{BG \cdot AB}{FG}$

$R = 1.991767$

Definitions.

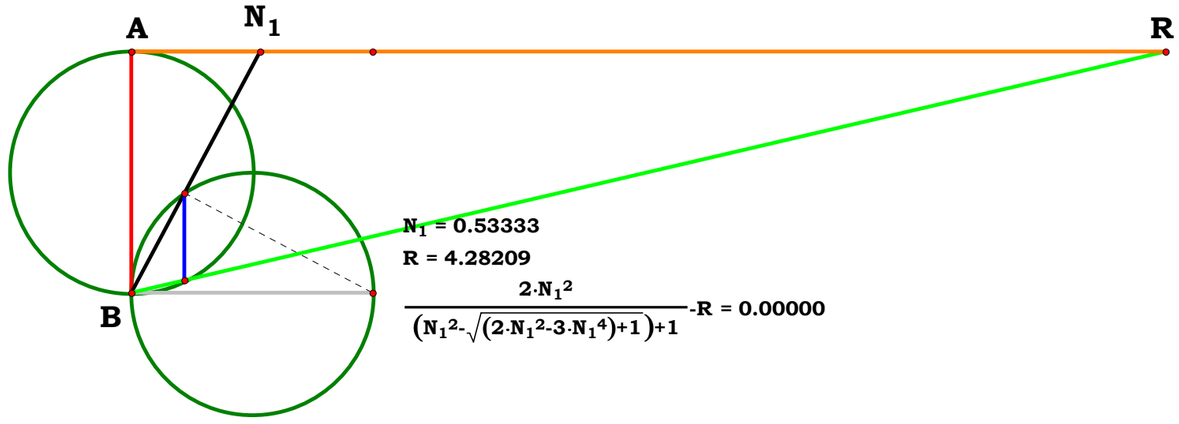
$$R - \frac{2 \cdot N^2}{N^2 - \sqrt{2 \cdot N^2 - 3 \cdot N^4 + 1} + 1} = 0$$

$$N - \frac{N_u}{A} = 0$$

$$R - \frac{2 \cdot N_u^2}{A^2 - \sqrt{(A + N_u) \cdot \left(A^2 + 3 \cdot N_u^2\right) \cdot (A - N_u)} + N_u^2} = 0$$

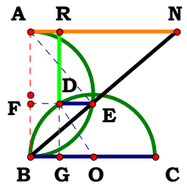
$$N - \frac{Z}{q} = 0$$

$$R - \frac{2 \cdot Z^2}{Z^2 + q^2 - \sqrt{-3 \cdot Z^4 + 2 \cdot Z^2 \cdot q^2 + q^4}} = 0$$



$N_1 = 0.53333$
$R = 4.28209$
$\frac{2 \cdot N_1^2}{\left(N_1^2 - \sqrt{\left(2 \cdot N_1^2 - 3 \cdot N_1^4\right) + 1}\right) + 1} - R = 0.00000$

3OBT10BR0



N = 1.17172
R = 0.23092

Unit. $AB := 1$ Given. $N := 1.17172$

$N_u := 3$ $A := \frac{N_u}{N}$ $Z := 20$ $q := \frac{Z}{N}$

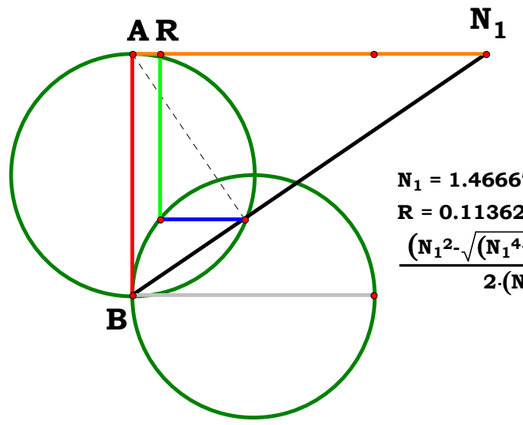
Descriptions.

$BN := \sqrt{N^2 + AB^2}$ $BE := \frac{AB^2}{BN}$

$BF := \frac{AB \cdot BE}{BN}$ $DG := BF$

$GO := \sqrt{\left(\frac{AB}{2}\right)^2 - DG^2}$ $BG := \frac{AB}{2} - GO$

$R := BG$ $R = 0.230918$



$N_1 = 1.46667$

$R = 0.11362$

$\frac{\left(N_1^2 - \sqrt{\left(N_1^4 + 2 \cdot N_1^2\right) - 3}\right) + 1}{2 \cdot \left(N_1^2 + 1\right)} - R = 0.00000$

Definitions.

$R - \frac{N^2 - \sqrt{N^4 + 2 \cdot N^2 - 3} + 1}{2 \cdot \left(N^2 + 1\right)} = 0$

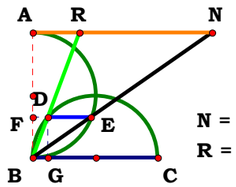
$N - \frac{N_u}{A} = 0$

$R - \frac{A^2 + N_u^2 - \sqrt{\left(N_u - A\right) \cdot \left(A + N_u\right) \cdot \left(3 \cdot A^2 + N_u^2\right)}}{2 \cdot \left(A^2 + N_u^2\right)} = 0$

$N - \frac{Z}{q} = 0$

$R - \frac{Z^2 + q^2 - \sqrt{Z^4 + 2 \cdot Z^2 \cdot q^2 - 3 \cdot q^4}}{2 \cdot \left(Z^2 + q^2\right)} = 0$

3OBT10BR1



N = 1.43434
R = 0.37246

Unit. $AB := 1$ Given. $N := 1.43434$

$N_u := 3$ $A := \frac{N_u}{N}$ $Z := 20$ $q := \frac{Z}{N}$

Descriptions.

$$DG := \frac{1}{N^2+1} \qquad BG := \frac{N^2-\sqrt{N^4+2\cdot N^2-3}+1}{2\cdot\left(N^2+1\right)}$$

$$R := \frac{BG\cdot AB}{DG} \qquad R = 0.372457$$

Definitions.

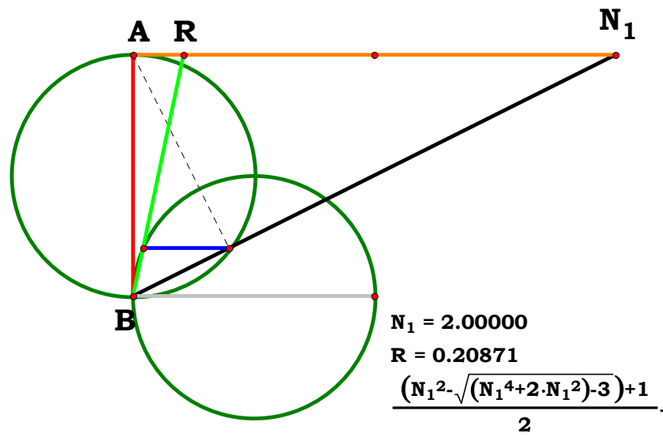
$$R-\frac{N^2-\sqrt{N^4+2\cdot N^2-3}+1}{2}=0$$

$$N-\frac{N_u}{A}=0$$

$$R-\frac{A^2+N_u{}^2-\sqrt{\left[\left(N_u-A\right)\cdot\left(A+N_u\right)\cdot\left(3\cdot A^2+N_u{}^2\right)\right]}}{2\cdot A^2}=0$$

$$N-\frac{Z}{q}=0$$

$$R-\frac{Z^2+q^2-\sqrt{Z^4+2\cdot Z^2\cdot q^2-3\cdot q^4}}{2\cdot q^2}=0$$

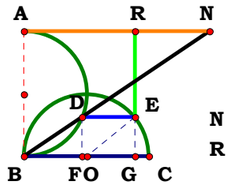


$N_1 = 2.00000$

$R = 0.20871$

$$\frac{\left(N_1{}^2-\sqrt{\left(N_1{}^4+2\cdot N_1{}^2\right)-3}\right)+1}{2}-R = 0.00000$$

3OBT10BR2



N = 1.48485
R = 0.89068

Unit. $AB := 1$ Given. $N := 1.48485$

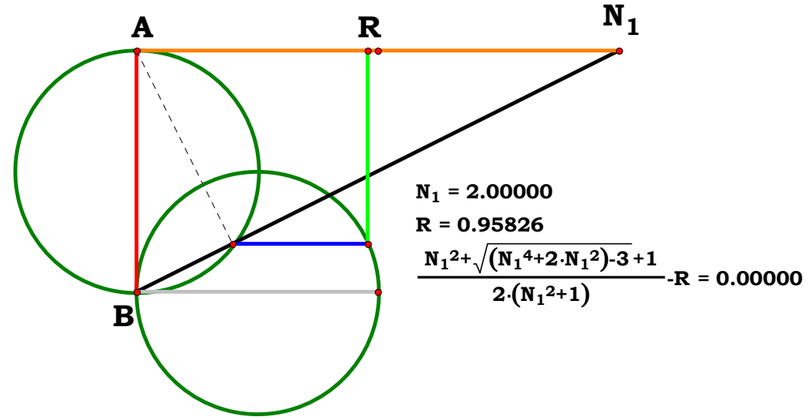
$N_u := 3$ $A := \frac{N_u}{N}$ $Z := 20$ $q := \frac{Z}{N}$

Descriptions.

$DF := \frac{1}{N^2 + 1}$ $GO := \sqrt{\left(\frac{AB}{2}\right)^2 - DF^2}$

$BG := \frac{AB}{2} + GO$ $R := BG$

$R = 0.890685$



$N_1 = 2.00000$

$R = 0.95826$

$\frac{N_1^2 + \sqrt{(N_1^4 + 2 \cdot N_1^2) - 3} + 1}{2 \cdot (N_1^2 + 1)} - R = 0.00000$

Definitions.

$R - \frac{N^2 + \sqrt{N^4 + 2 \cdot N^2 - 3} + 1}{2 \cdot (N^2 + 1)} = 0$

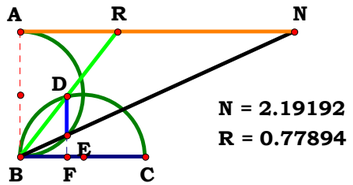
$N - \frac{N_u}{A} = 0$

$R - \frac{A^2 + N_u^2 + \sqrt{2 \cdot A^2 \cdot N_u^2 - 3 \cdot A^4 + N_u^4}}{2 \cdot (A^2 + N_u^2)} = 0$

$N - \frac{Z}{q} = 0$

$R - \frac{Z^2 + q^2 + \sqrt{Z^4 + 2 \cdot Z^2 \cdot q^2 - 3 \cdot q^4}}{2 \cdot (Z^2 + q^2)} = 0$

3OBT10BR3



N = 2.19192
R = 0.77894

Unit. $AB := 1$ Given. $N := 2.19192$

$N_u := 3$ $A := \frac{N_u}{N}$ $Z := 20$ $q := \frac{Z}{N}$

Descriptions.

$BF := \frac{N}{N^2 + 1}$ $CF := AB - BF$

$DF := \sqrt{BF \cdot CF}$ $R := \frac{BF \cdot AB}{DF}$

$R = 0.778938$

Definitions.

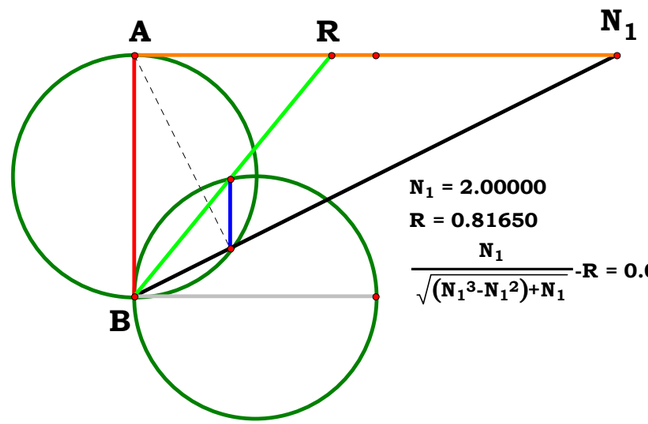
$$R - \frac{N}{\sqrt{N^3 - N^2 + N}} = 0$$

$$N - \frac{N_u}{A} = 0$$

$$R - \frac{\sqrt{A} \cdot N_u}{\sqrt{N_u \cdot \left(A^2 - A \cdot N_u + N_u{}^2\right)}} = 0$$

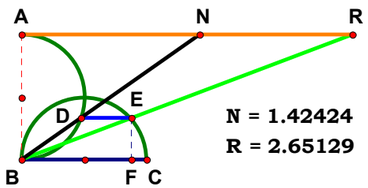
$$N - \frac{Z}{q} = 0$$

$$R - \frac{Z \cdot \sqrt{q}}{\sqrt{Z \cdot \left(Z^2 - Z \cdot q + q^2\right)}} = 0$$



$N_1 = 2.00000$
$R = 0.81650$
$\frac{N_1}{\sqrt{(N_1{}^3 - N_1{}^2) + N_1}} - R = 0.00000$

3OBT10BR4



Unit. $AB := 1$ Given. $N := 1.42424$

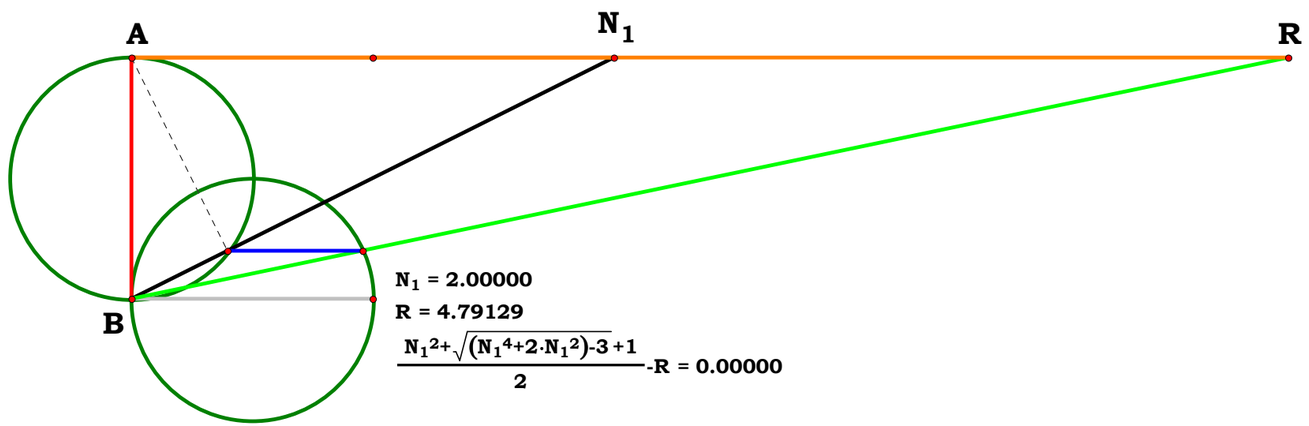
$N_u := 3$ $A := \frac{N_u}{N}$ $Z := 20$ $q := \frac{Z}{N}$

Descriptions.

$$BF := \frac{N^2 + \sqrt{N^4 + 2 \cdot N^2 - 3} + 1}{2 \cdot (N^2 + 1)}$$

$$EF := \frac{1}{N^2 + 1} \qquad R := \frac{BF \cdot AB}{EF}$$

$R = 2.651284$



Definitions.

$$R - \frac{N^2 + \sqrt{N^4 + 2 \cdot N^2 - 3} + 1}{2} = 0$$

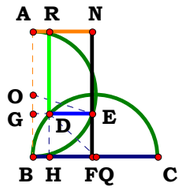
$$N - \frac{N_u}{A} = 0$$

$$R - \frac{A^2 + {N_u}^2 + \sqrt{2 \cdot A^2 \cdot {N_u}^2 - 3 \cdot A^4 + {N_u}^4}}{2 \cdot A^2} = 0$$

$$N - \frac{Z}{q} = 0$$

$$R - \frac{Z^2 + q^2 + \sqrt{Z^4 + 2 \cdot Z^2 \cdot q^2 - 3 \cdot q^4}}{2 \cdot q^2} = 0$$

3OBT10CR0



N = 0.47475
R = 0.13630

Unit. $AB := 1$ Given. $N := .47475$

$N_u := 3$ $A := \frac{N_u}{N}$ $Z := 20$ $q := \frac{Z}{N}$

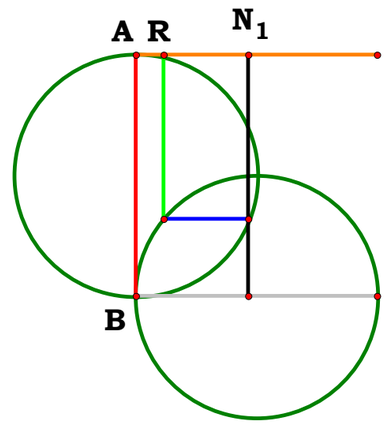
Descriptions.

$EG := N$ $GO := \sqrt{\left(\frac{AB}{2}\right)^2 - EG^2}$

$BG := \frac{AB}{2} - GO$ $DH := BG$

$HQ := \sqrt{\left(\frac{AB}{2}\right)^2 - DH^2}$ $BH := \frac{AB}{2} - HQ$

$R := BH$ $R = 0.136309$



$\frac{1-\sqrt{(4\cdot N_1^2+2\cdot\sqrt{1-4\cdot N_1^2})-1}}{2}-R = 0.00000$

$N_1 = 0.46667$
R = 0.11622

Definitions.

$R - \frac{1-\sqrt{4\cdot N^2+2\cdot\sqrt{1-4\cdot N^2}-1}}{2} = 0$

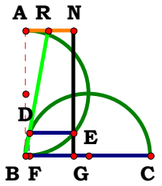
$N - \frac{N_u}{A} = 0$

$R - \frac{A-\sqrt{2\cdot A\cdot\sqrt{A^2-4\cdot N_u^2}-A^2+4\cdot N_u^2}}{2\cdot A} = 0$

$N - \frac{Z}{q} = 0$

$R - \frac{q-\sqrt{4\cdot Z^2-q^2+2\cdot q\cdot\sqrt{q^2-4\cdot Z^2}}}{2\cdot q} = 0$

3OBT10CR1



N = 0.38384
R = 0.18578

Unit. $AB := 1$ **Given.** $N := .38384$

$N_u := 3$ $A := \frac{N_u}{N}$ $Z := 20$ $q := \frac{Z}{N}$

Descriptions.

$$DF := \frac{1-\left(1-4\cdot N^2\right)^{\frac{1}{2}}}{2}$$

$$BF := \frac{1-\sqrt{4\cdot N^2+2\cdot\sqrt{1-4\cdot N^2}-1}}{2}$$

$$R := \frac{BF\cdot AB}{DF} \qquad R = 0.185782$$

Definitions.

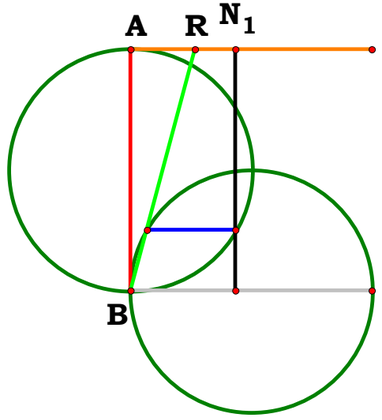
$$R-\frac{\sqrt{4\cdot N^2+2\cdot\sqrt{1-4\cdot N^2}-1}-1}{\sqrt{1-4\cdot N^2}-1}=0$$

$$N-\frac{N_u}{A}=0$$

$$R-\frac{A-\sqrt{2\cdot A\cdot\sqrt{A^2-4\cdot {N_u}^2}-A^2+4\cdot {N_u}^2}}{A-\sqrt{A^2-4\cdot {N_u}^2}}=0$$

$$N-\frac{Z}{q}=0$$

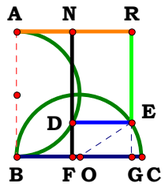
$$R-\frac{q-\sqrt{4\cdot Z^2-q^2+2\cdot q\cdot\sqrt{q^2-4\cdot Z^2}}}{q-\sqrt{q^2-4\cdot Z^2}}=0$$



$N_1 = 0.43333$
$R = 0.26864$

$$\frac{1-\sqrt{\left(4\cdot {N_1}^2+2\cdot\sqrt{1-4\cdot {N_1}^2}\right)-1}}{1-\sqrt{1-4\cdot {N_1}^2}}-R = 0.00000$$

3OBT10CR2



N = 0.44444

R = 0.92023

Unit. $AB := 1$ Given. $N := .44444$

$N_u := 3$ $A := \frac{N_u}{N}$ $Z := 20$ $q := \frac{Z}{N}$

Descriptions.

$$GO := \frac{\sqrt{4 \cdot N^2 + 2 \cdot \sqrt{1 - 4 \cdot N^2} - 1}}{2}$$

$$BG := \frac{AB}{2} + GO \quad R := BG$$

$R = 0.920234$

Definitions.

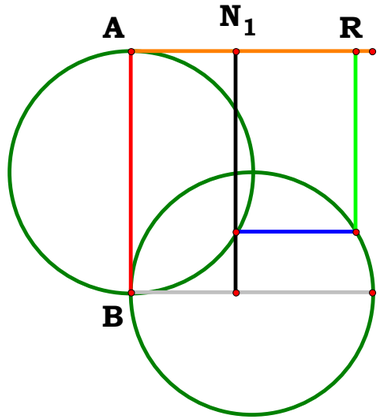
$$R - \frac{1 + \sqrt{4 \cdot N^2 + 2 \cdot \sqrt{1 - 4 \cdot N^2} - 1}}{2} = 0$$

$$N - \frac{N_u}{A} = 0$$

$$R - \frac{A + \sqrt{2 \cdot A \cdot \sqrt{A^2 - 4 \cdot N_u^2} - A^2 + 4 \cdot N_u^2}}{2 \cdot A} = 0$$

$$N - \frac{Z}{q} = 0$$

$$R - \frac{q + \sqrt{4 \cdot Z^2 - q^2 + 2 \cdot q \cdot \sqrt{q^2 - 4 \cdot Z^2}}}{2 \cdot q} = 0$$

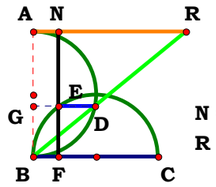


$N_1 = 0.43333$

$R = 0.93269$

$$\frac{1+\sqrt{\left(4 \cdot N_1^2+2 \cdot \sqrt{1-4 \cdot N_1^2}\right)-1}}{2} - R = 0.00000$$

3OBT10CR3



N = 0.20202
R = 1.22091

Unit. $AB := 1$ Given. $N := .20202$

$N_u := 3$ $A := \frac{N_u}{N}$ $Z := 20$ $q := \frac{Z}{N}$

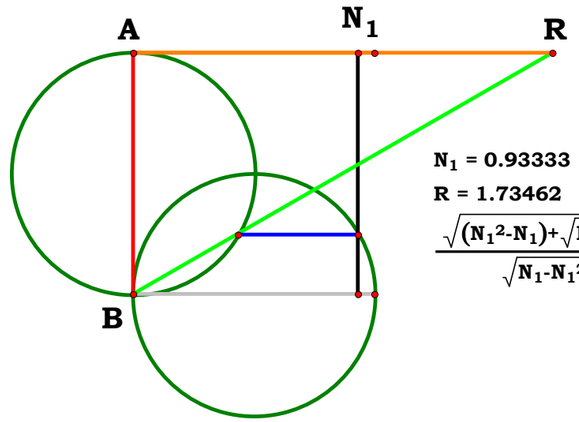
Descriptions.

$BF := N$ $CF := AB - BF$

$EF := \sqrt{BF \cdot CF}$ $BG := EF$

$AG := AB - BG$ $DG := \sqrt{AG \cdot BG}$

$R := \frac{DG \cdot AB}{BG}$ $R = 1.220908$



$N_1 = 0.93333$

$R = 1.73462$

$\frac{\sqrt{(N_1^2 - N_1) + \sqrt{N_1 - N_1^2}}}{\sqrt{N_1 - N_1^2}} - R = 0.00000$

Definitions.

$$R - \frac{\sqrt{N^2 - N + \sqrt{N - N^2}}}{\sqrt{N - N^2}} = 0$$

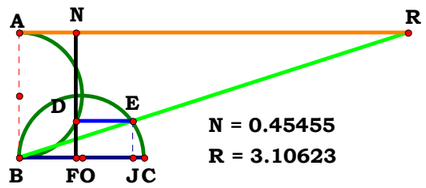
$$N - \frac{N_u}{A} = 0$$

$$R - \frac{\sqrt{N_u^2 - A \cdot N_u + A \cdot \sqrt{N_u \cdot (A - N_u)}}}{\sqrt{N_u \cdot (A - N_u)}} = 0$$

$$N - \frac{Z}{q} = 0$$

$$R - \frac{\sqrt{q \cdot \sqrt{Z \cdot (q - Z)} + Z^2 - Z \cdot q}}{\sqrt{Z \cdot (q - Z)}} = 0$$

3OBT10CR4



Unit. $AB := 1$ Given. $N := .45455$

$N_u := 3$ $A := \frac{N_u}{N}$ $Z := 20$ $q := \frac{Z}{N}$

Descriptions.

$$EJ := \frac{1-\sqrt{1-4\cdot N^2}}{2} \qquad OJ := \frac{\sqrt{4\cdot N^2+2\cdot\sqrt{1-4\cdot N^2}-1}}{2}$$

$$BJ := \frac{AB}{2}+OJ \qquad R := \frac{BJ\cdot AB}{EJ}$$

$R = 3.106103$

Definitions.

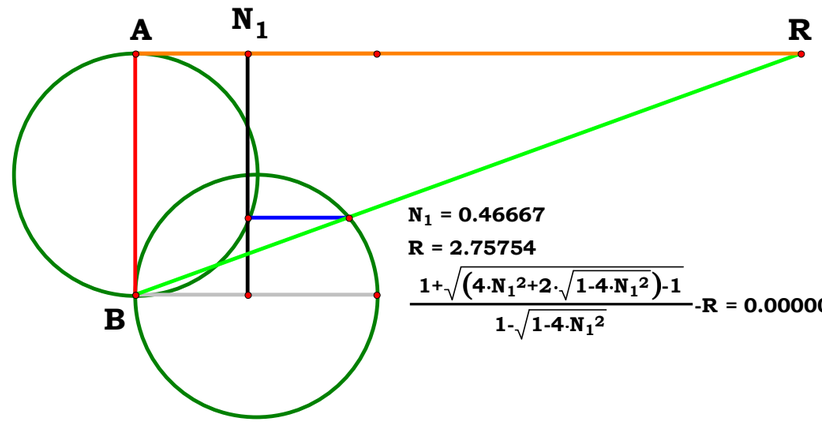
$$R-\frac{1+\sqrt{4\cdot N^2+2\cdot\sqrt{1-4\cdot N^2}-1}}{1-\sqrt{1-4\cdot N^2}}=0$$

$$N-\frac{N_u}{A}=0$$

$$R-\frac{A+\sqrt{2\cdot A\cdot\sqrt{A^2-4\cdot N_u{}^2}-A^2+4\cdot N_u{}^2}}{A-\sqrt{A^2-4\cdot N_u{}^2}}=0$$

$$N-\frac{Z}{q}=0$$

$$R-\frac{q+\sqrt{4\cdot Z^2-q^2+2\cdot q\cdot\sqrt{q^2-4\cdot Z^2}}}{q-\sqrt{q^2-4\cdot Z^2}}=0$$

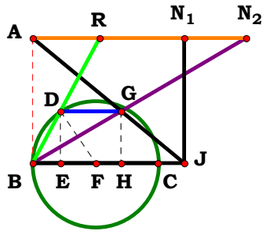


$N_1 = 0.46667$

$R = 2.75754$

$$\frac{1+\sqrt{\left(4\cdot N_1{}^2+2\cdot\sqrt{1-4\cdot N_1{}^2}\right)-1}}{1-\sqrt{1-4\cdot N_1{}^2}}-R = 0.00000$$

3OBT11R0



$N_1 = 1.21212$
$N_2 = 1.70707$
$R = 0.53333$

Unit. $AB := 1$ Given. $N_1 := 1.21212$ $N_2 := 1.70707$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $Y := 20$ $Z := 19$ $p := \frac{Y}{N_1}$ $q := \frac{Z}{N_2}$

Descriptions.

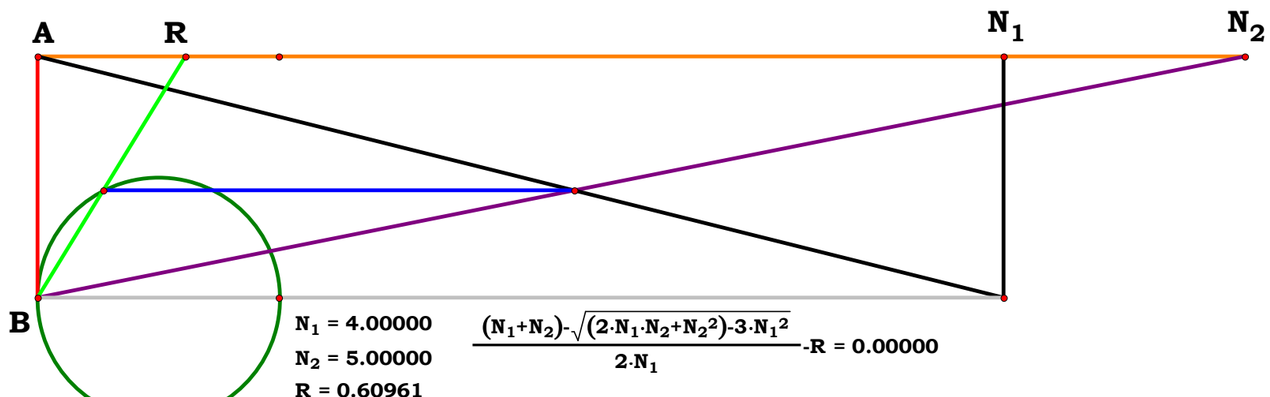
$BH := \frac{N_2 \cdot N_1}{N_2 + N_1}$ $GH := \frac{BH}{N_2}$

$BE := \frac{AB}{2} - \sqrt{\left(\frac{AB}{2}\right)^2 - GH^2}$ $R := \frac{BE}{GH}$

$R = 0.533333$

Definitions.

$$R - \frac{N_1 + N_2 - \sqrt{2 \cdot N_1 \cdot N_2 + N_2^2 - 3 \cdot N_1^2}}{2 \cdot N_1} = 0$$



$N_1 = 4.00000$
$N_2 = 5.00000$
$R = 0.60961$

$\frac{(N_1+N_2)-\sqrt{(2 \cdot N_1 \cdot N_2+N_2^2)-3 \cdot N_1^2}}{2 \cdot N_1} - R = 0.00000$

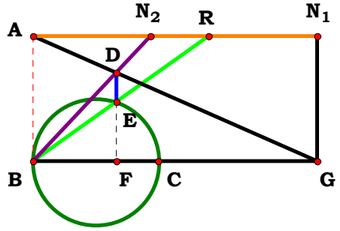
$$N_1 - \frac{Y}{p} = 0 \qquad N_2 - \frac{Z}{q} = 0$$

$$R - \frac{A + B - \sqrt{A^2 + 2 \cdot A \cdot B - 3 \cdot B^2}}{2 \cdot B} = 0$$

$$N_1 - \frac{N_u}{A} = 0 \qquad N_2 - \frac{N_u}{B} = 0$$

$$R - \frac{N_1 + N_2 - \sqrt{2 \cdot N_1 \cdot N_2 + N_2^2 - 3 \cdot N_1^2}}{2 \cdot N_1} = 0$$

3OBT11R1



$N_1 = 2.27273$
$N_2 = 0.93939$
$R = 1.40787$

Unit. $AB := 1$ Given. $N_1 := 2.27273$ $N_2 := .93939$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $Y := 20$ $Z := 19$ $p := \frac{Y}{N_1}$ $q := \frac{Z}{N_2}$

Descriptions.

$BF := \frac{N_2 \cdot N_1}{N_2 + N_1}$ $ef := \sqrt{BF \cdot (AB - BF)}$

$R := \frac{BF}{ef}$ $R = 1.407864$

Definitions.

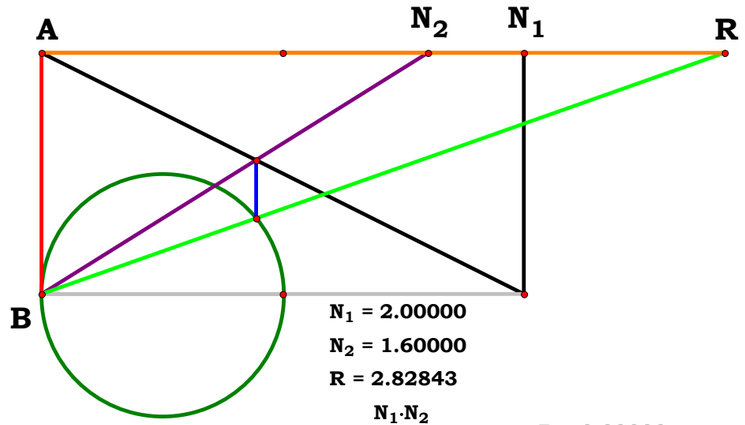
$$R - \frac{N_1 \cdot N_2}{\sqrt{N_1 \cdot N_2 \cdot (N_1 + N_2 - N_1 \cdot N_2)}} = 0$$

$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$

$$R - \frac{N_u}{\sqrt{N_u \cdot (A + B - N_u)}} = 0$$

$N_1 - \frac{Y}{p} = 0$ $N_2 - \frac{Z}{q} = 0$

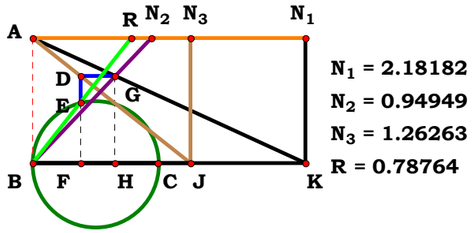
$$R - \frac{Y \cdot Z}{\sqrt{Y \cdot Z \cdot (Y \cdot q - Y \cdot Z + Z \cdot p)}} = 0$$



$N_1 = 2.00000$
$N_2 = 1.60000$
$R = 2.82843$

$$\frac{N_1 \cdot N_2}{\sqrt{N_1 \cdot N_2 \cdot ((N_1 + N_2) - N_1 \cdot N_2)}} - R = 0.00000$$

3OBT11R2



$N_1 = 2.18182$
$N_2 = 0.94949$
$N_3 = 1.26263$
$R = 0.78764$

Unit. $AB := 1$ **Given.** $N_1 := 2.18182$ $N_2 := .94949$ $N_3 := 1.26263$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

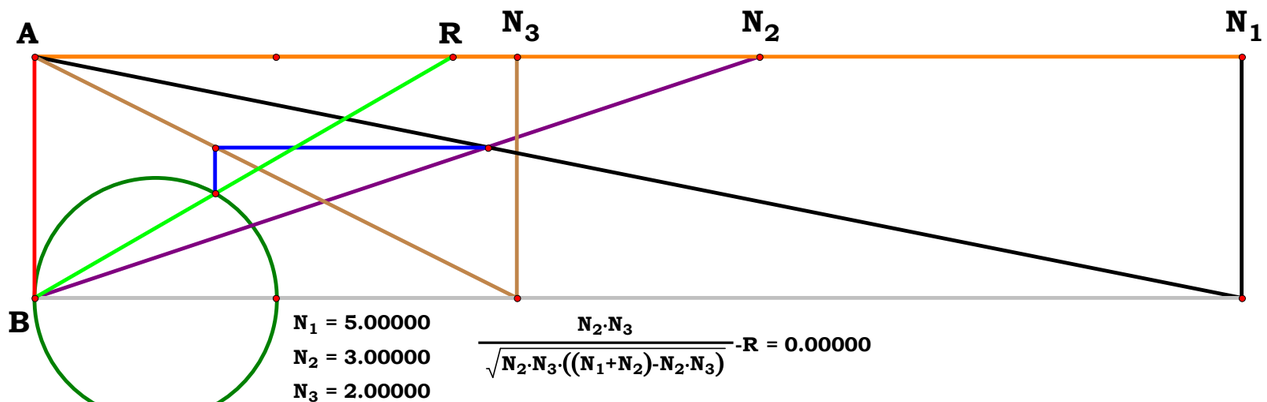
Descriptions.

$BH := \frac{N_2 \cdot N_1}{N_2 + N_1}$ $GH := \frac{BH}{N_2}$

$BF := N_3 - N_3 \cdot GH$ $EF := \sqrt{BF \cdot (AB - BF)}$

$R := \frac{BF}{EF}$ $R = 0.787641$

$Boolean := \frac{EF^2 + \sqrt{EF^4}}{2\sqrt{EF^4}}$



$N_1 = 5.00000$
$N_2 = 3.00000$
$N_3 = 2.00000$
$R = 1.73205$

$\frac{N_2 \cdot N_3}{\sqrt{N_2 \cdot N_3 \cdot ((N_1 + N_2) - N_2 \cdot N_3)}} - R = 0.00000$

Definitions.

Boolean $= 1$

$R - \frac{N_2 \cdot N_3}{\sqrt{N_2 \cdot N_3 \cdot (N_1 + N_2 - N_2 \cdot N_3)}} = 0$

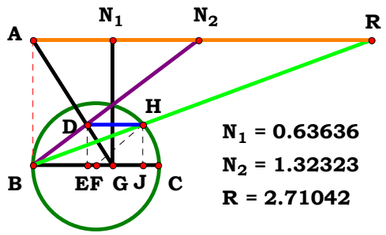
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$

$R - \frac{\sqrt{A} \cdot N_u}{\sqrt{N_u \cdot (A \cdot C + B \cdot C - A \cdot N_u)}} = 0$

$N_1 - \frac{X}{o} = 0$ $N_2 - \frac{Y}{p} = 0$ $N_3 - \frac{Z}{q} = 0$

$R - \frac{Y \cdot Z \cdot \sqrt{o}}{\sqrt{Y \cdot Z \cdot (X \cdot p \cdot q - Y \cdot Z \cdot o + Y \cdot o \cdot q)}} = 0$

3OBT11R3



Unit. $AB := 1$ Given. $N_1 := .63636$ $N_2 := 1.32323$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $Y := 20$ $Z := 19$ $p := \frac{Y}{N_1}$ $q := \frac{Z}{N_2}$

Descriptions.

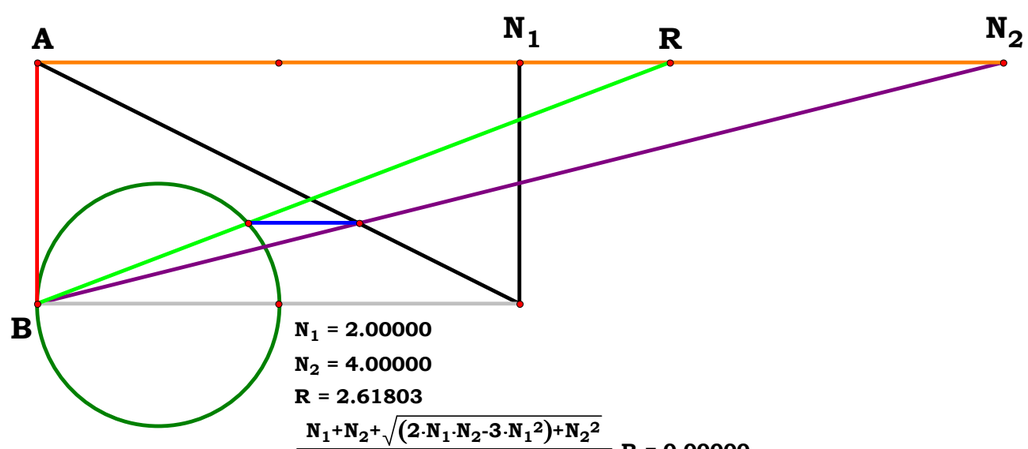
$$BE := \frac{N_2 \cdot N_1}{N_2 + N_1} \qquad DE := \frac{BE}{N_2}$$

$$JC := \frac{AB}{2} - \sqrt{\left(\frac{AB}{2}\right)^2 - DE^2} \qquad BJ := AB - JC$$

$$R := \frac{BJ}{DE} \qquad R = 2.710428$$

Definitions.

$$R - \frac{N_1 + N_2 + \sqrt{2 \cdot N_1 \cdot N_2 - 3 \cdot N_1^2 + N_2^2}}{2 \cdot N_1} = 0$$



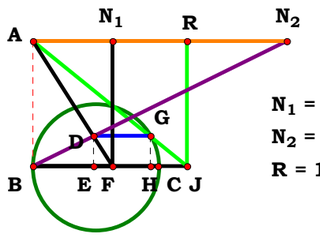
$$N_1 - \frac{N_u}{A} = 0 \qquad N_2 - \frac{N_u}{B} = 0$$

$$R - \frac{A + B + \sqrt{A^2 + 2 \cdot A \cdot B - 3 \cdot B^2}}{2 \cdot B} = 0$$

$$N_1 - \frac{Y}{p} = 0 \qquad N_2 - \frac{Z}{q} = 0$$

$$R - \frac{Y \cdot q + Z \cdot p + \sqrt{2 \cdot Y \cdot Z \cdot p \cdot q - 3 \cdot Y^2 \cdot q^2 + Z^2 \cdot p^2}}{2 \cdot Y \cdot q} = 0$$

3OBT11R4



$N_1 = 0.63636$

$N_2 = 2.03030$

$R = 1.23381$

Unit. $AB := 1$ Given. $N_1 := .63636$ $N_2 := 2.03030$

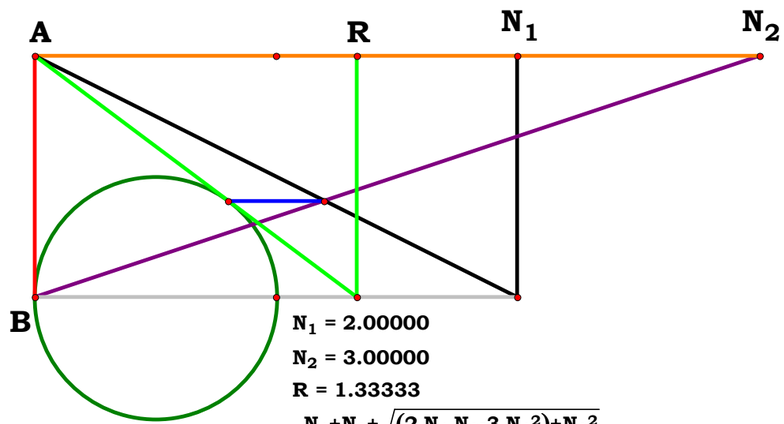
$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $Y := 20$ $Z := 19$ $p := \frac{Y}{N_1}$ $q := \frac{Z}{N_2}$

Descriptions.

$$BE := \frac{N_1 \cdot N_2}{N_1 + N_2} \quad DE := \frac{BE}{N_2}$$

$$BH := AB - \left[\frac{AB}{2} - \sqrt{\left(\frac{AB}{2}\right)^2 - DE^2}\right] \quad R := \frac{BH}{AB - DE}$$

$R = 1.233809$



$N_1 = 2.00000$

$N_2 = 3.00000$

$R = 1.33333$

$$\frac{N_1+N_2+\sqrt{(2\cdot N_1\cdot N_2-3\cdot N_1^2)+N_2^2}}{2\cdot N_2}-R = 0.00000$$

Definitions.

$$R - \frac{N_1 + N_2 + \sqrt{2 \cdot N_1 \cdot N_2 - 3 \cdot N_1^2 + N_2^2}}{2 \cdot N_2} = 0$$

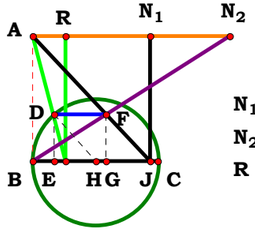
$$N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0$$

$$R - \frac{A + B + \sqrt{A^2 + 2 \cdot A \cdot B - 3 \cdot B^2}}{2 \cdot A} = 0$$

$$N_1 - \frac{Y}{p} = 0 \quad N_2 - \frac{Z}{q} = 0$$

$$R - \frac{Y \cdot q + Z \cdot p + \sqrt{2 \cdot Y \cdot Z \cdot p \cdot q - 3 \cdot Y^2 \cdot q^2 + Z^2 \cdot p^2}}{2 \cdot Z \cdot p} = 0$$

3OBT11R5



$N_1 = 0.93939$

$N_2 = 1.57576$

$R = 0.26749$

Unit. $AB := 1$ Given. $N_1 := .93939$ $N_2 := 1.57576$

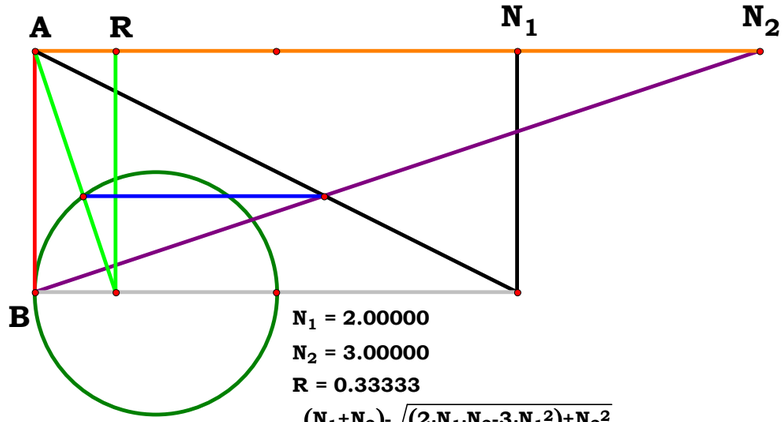
$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $Y := 20$ $Z := 19$ $p := \frac{Y}{N_1}$ $q := \frac{Z}{N_2}$

Descriptions.

$$bg := \frac{N_1 \cdot N_2}{N_1 + N_2} \qquad fg := \frac{bg}{N_2}$$

$$be := \frac{AB}{2} - \sqrt{\left(\frac{AB}{2}\right)^2 - fg^2} \qquad R := \frac{be}{1 - fg}$$

$R = 0.267482$



$N_1 = 2.00000$

$N_2 = 3.00000$

$R = 0.33333$

$\frac{(N_1+N_2)-\sqrt{(2\cdot N_1\cdot N_2-3\cdot N_1{}^2)+N_2{}^2}}{2\cdot N_2}$-R = 0.00000

Definitions.

$$R - \frac{N_1 + N_2 - \sqrt{2 \cdot N_1 \cdot N_2 - 3 \cdot N_1{}^2 + N_2{}^2}}{2 \cdot N_2} = 0$$

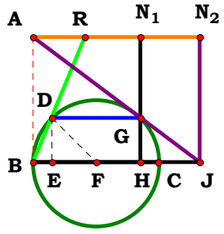
$$N_1 - \frac{N_u}{A} = 0 \qquad N_2 - \frac{N_u}{B} = 0$$

$$R - \frac{A + B - \sqrt{A^2 + 2 \cdot A \cdot B - 3 \cdot B^2}}{2 \cdot A} = 0$$

$$N_1 - \frac{Y}{p} = 0 \qquad N_2 - \frac{Z}{q} = 0$$

$$R - \frac{Y \cdot q + Z \cdot p - \sqrt{-3 \cdot Y^2 \cdot q^2 + 2 \cdot Y \cdot Z \cdot p \cdot q + Z^2 \cdot p^2}}{2 \cdot Z \cdot p} = 0$$

3OBT11R6



$N_1 = 0.85859$
$N_2 = 1.33333$
$R = 0.41839$

Unit. $AB := 1$ Given. $N_1 := .85859$ $N_2 := 1.33333$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $Y := 20$ $Z := 19$ $p := \frac{Y}{N_1}$ $q := \frac{Z}{N_2}$

Descriptions.

$$GH := \frac{N_2 - N_1}{N_2} \qquad BE := \frac{AB}{2} - \sqrt{\left(\frac{AB}{2}\right)^2 - GH^2}$$

$$R := \frac{BE}{GH} \qquad R = 0.418381$$

Definitions.

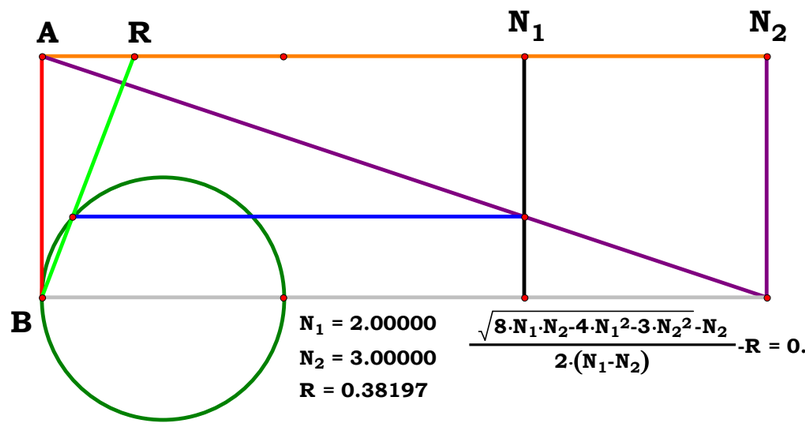
$$R - \frac{\sqrt{8 \cdot N_1 \cdot N_2 - 4 \cdot N_1^2 - 3 \cdot N_2^2} - N_2}{2 \cdot (N_1 - N_2)} = 0$$

$$N_1 - \frac{N_u}{A} = 0 \qquad N_2 - \frac{N_u}{B} = 0$$

$$R - \frac{A - \sqrt{(2 \cdot B - A) \cdot (3 \cdot A - 2 \cdot B)}}{2 \cdot (A - B)} = 0$$

$$N_1 - \frac{Y}{p} = 0 \qquad N_2 - \frac{Z}{q} = 0$$

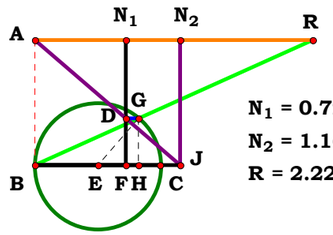
$$R - \frac{Z \cdot p - \sqrt{(Z \cdot p - 2 \cdot Y \cdot q) \cdot (2 \cdot Y \cdot q - 3 \cdot Z \cdot p)}}{2 \cdot (Z \cdot p - Y \cdot q)} = 0$$



$N_1 = 2.00000$
$N_2 = 3.00000$
$R = 0.38197$

$$\frac{\sqrt{8 \cdot N_1 \cdot N_2 - 4 \cdot N_1^2 - 3 \cdot N_2^2} - N_2}{2 \cdot (N_1 - N_2)} - R = 0.00000$$

3OBT11R7



$N_1 = 0.72727$
$N_2 = 1.16162$
$R = 2.22498$

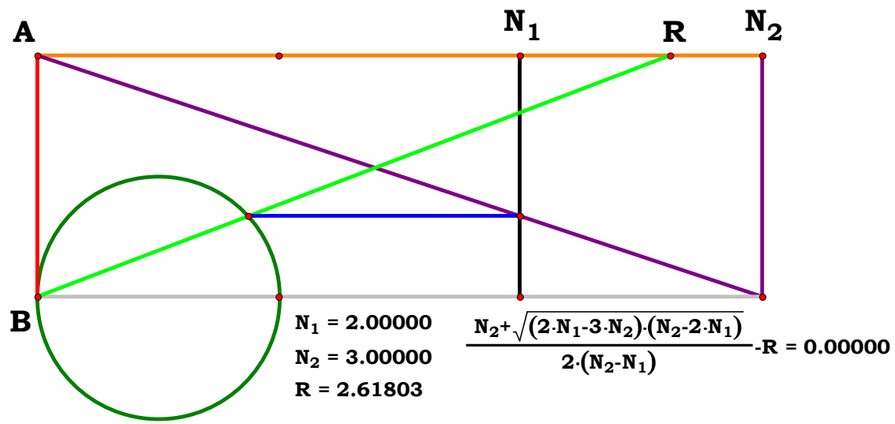
Unit. $AB := 1$ **Given.** $N_1 := .72727$ $N_2 := 1.16162$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $Y := 20$ $Z := 19$ $p := \frac{Y}{N_1}$ $q := \frac{Z}{N_2}$

Descriptions.

$DF := 1 - \frac{N_1}{N_2}$ $BH := AB - \frac{AB}{2} + \sqrt{\left(\frac{AB}{2}\right)^2 - DF^2}$

$R := \frac{BH}{DF}$ $R = 2.224936$



$N_1 = 2.00000$
$N_2 = 3.00000$
$R = 2.61803$

$\frac{N_2+\sqrt{(2\cdot N_1-3\cdot N_2)\cdot(N_2-2\cdot N_1)}}{2\cdot(N_2-N_1)}-R = 0.00000$

Definitions.

$$R - \frac{N_2 + \sqrt{(2\cdot N_1 - 3\cdot N_2)\cdot(N_2 - 2\cdot N_1)}}{2\cdot(N_2 - N_1)} = 0$$

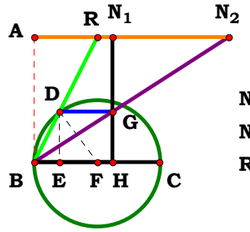
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$

$$R - \frac{A + \sqrt{(2\cdot B - A)\cdot(3\cdot A - 2\cdot B)}}{2\cdot(A - B)} = 0$$

$N_1 - \frac{Y}{p} = 0$ $N_2 - \frac{Z}{q} = 0$

$$R - \frac{\sqrt{(Z\cdot p - 2\cdot Y\cdot q)\cdot(2\cdot Y\cdot q - 3\cdot Z\cdot p)} + Z\cdot p}{2\cdot(Z\cdot p - Y\cdot q)} = 0$$

3OBT11R8



$N_1 = 0.62626$
$N_2 = 1.55556$
$R = 0.50545$

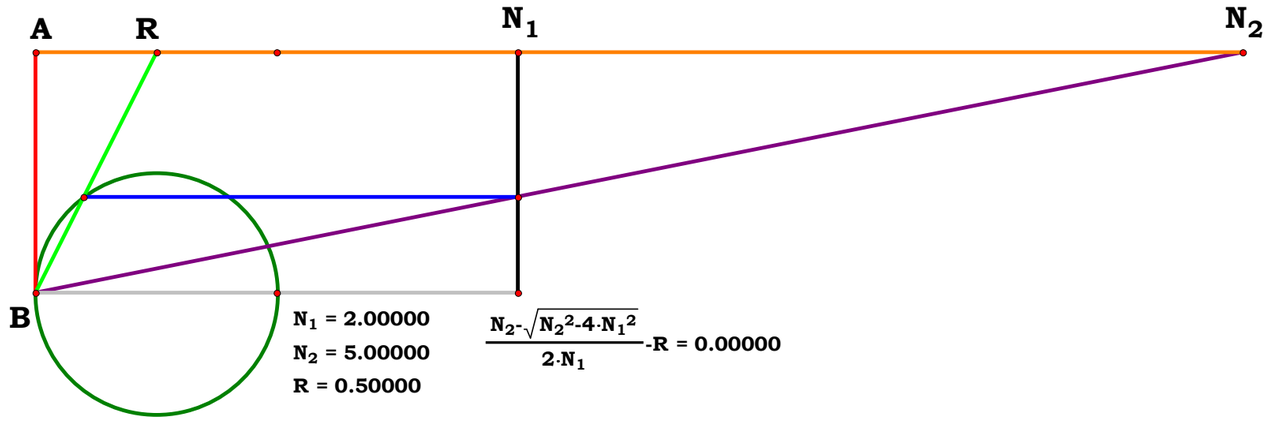
Unit. $AB := 1$ Given. $N_1 := .62626$ $N_2 := 1.55556$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $Y := 20$ $Z := 19$ $p := \frac{Y}{N_1}$ $q := \frac{Z}{N_2}$

Descriptions.

$$GH := \frac{N_1}{N_2} \qquad BE := \frac{AB}{2} - \sqrt{\left(\frac{AB}{2}\right)^2 - GH^2}$$

$$R := \frac{BE}{GH} \qquad R = 0.505449$$



Definitions.

$$R - \frac{N_2 - \sqrt{N_2^2 - 4 \cdot N_1^2}}{2 \cdot N_1} = 0$$

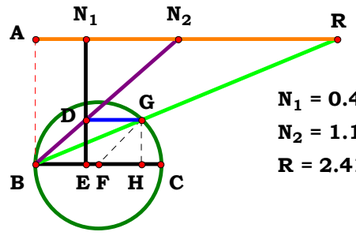
$$N_1 - \frac{N_u}{A} = 0 \qquad N_2 - \frac{N_u}{B} = 0$$

$$R - \frac{A - \sqrt{(A - 2 \cdot B) \cdot (A + 2 \cdot B)}}{2 \cdot B} = 0$$

$$N_1 - \frac{Y}{p} = 0 \qquad N_2 - \frac{Z}{q} = 0$$

$$R - \frac{Z \cdot p - \sqrt{Z^2 \cdot p^2 - 4 \cdot Y^2 \cdot q^2}}{2 \cdot Y \cdot q} = 0$$

3OBT11R9



$N_1 = 0.40404$
$N_2 = 1.14141$
$R = 2.41008$

Unit. $AB := 1$ Given. $N_1 := .40404$ $N_2 := 1.14141$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $Y := 20$ $Z := 19$ $p := \frac{Y}{N_1}$ $q := \frac{Z}{N_2}$

Descriptions.

$$DE := \frac{N_1}{N_2} \qquad BH := AB - \left[\frac{AB}{2} - \sqrt{\left(\frac{AB}{2}\right)^2 - DE^2}\right]$$

$$R := \frac{BH}{DE} \qquad R = 2.410066$$

Definitions.

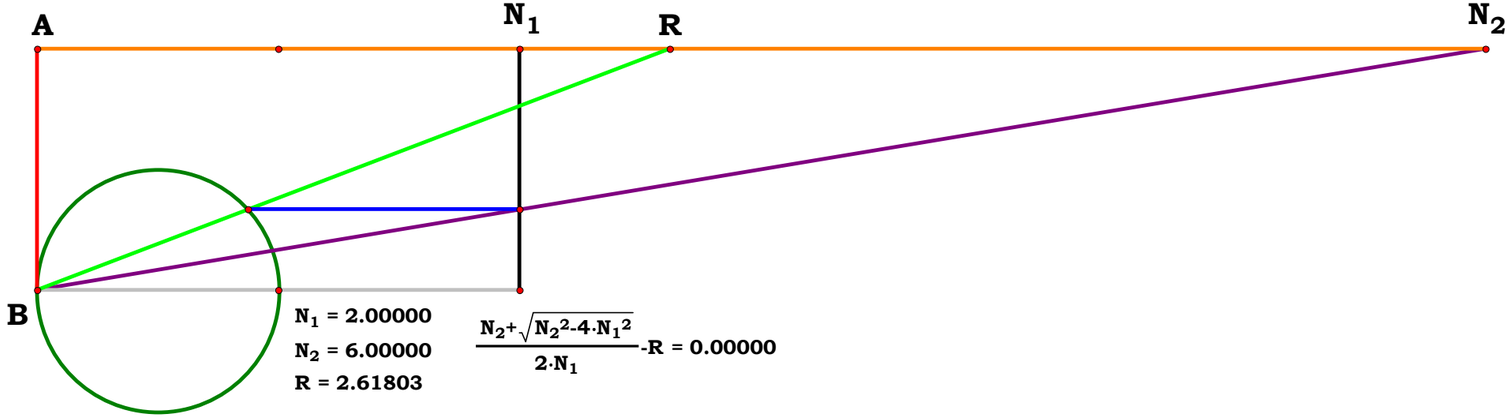
$$R - \frac{N_2 + \sqrt{N_2^2 - 4 \cdot N_1^2}}{2 \cdot N_1} = 0$$

$$N_1 - \frac{N_u}{A} = 0 \qquad N_2 - \frac{N_u}{B} = 0$$

$$R - \frac{A + \sqrt{A^2 - 4 \cdot B^2}}{2 \cdot B} = 0$$

$$N_1 - \frac{Y}{p} = 0 \qquad N_2 - \frac{Z}{q} = 0$$

$$R - \frac{Z \cdot p + \sqrt{Z^2 \cdot p^2 - 4 \cdot Y^2 \cdot q^2}}{2 \cdot Y \cdot q} = 0$$



$N_1 = 2.00000$
$N_2 = 6.00000$
$R = 2.61803$

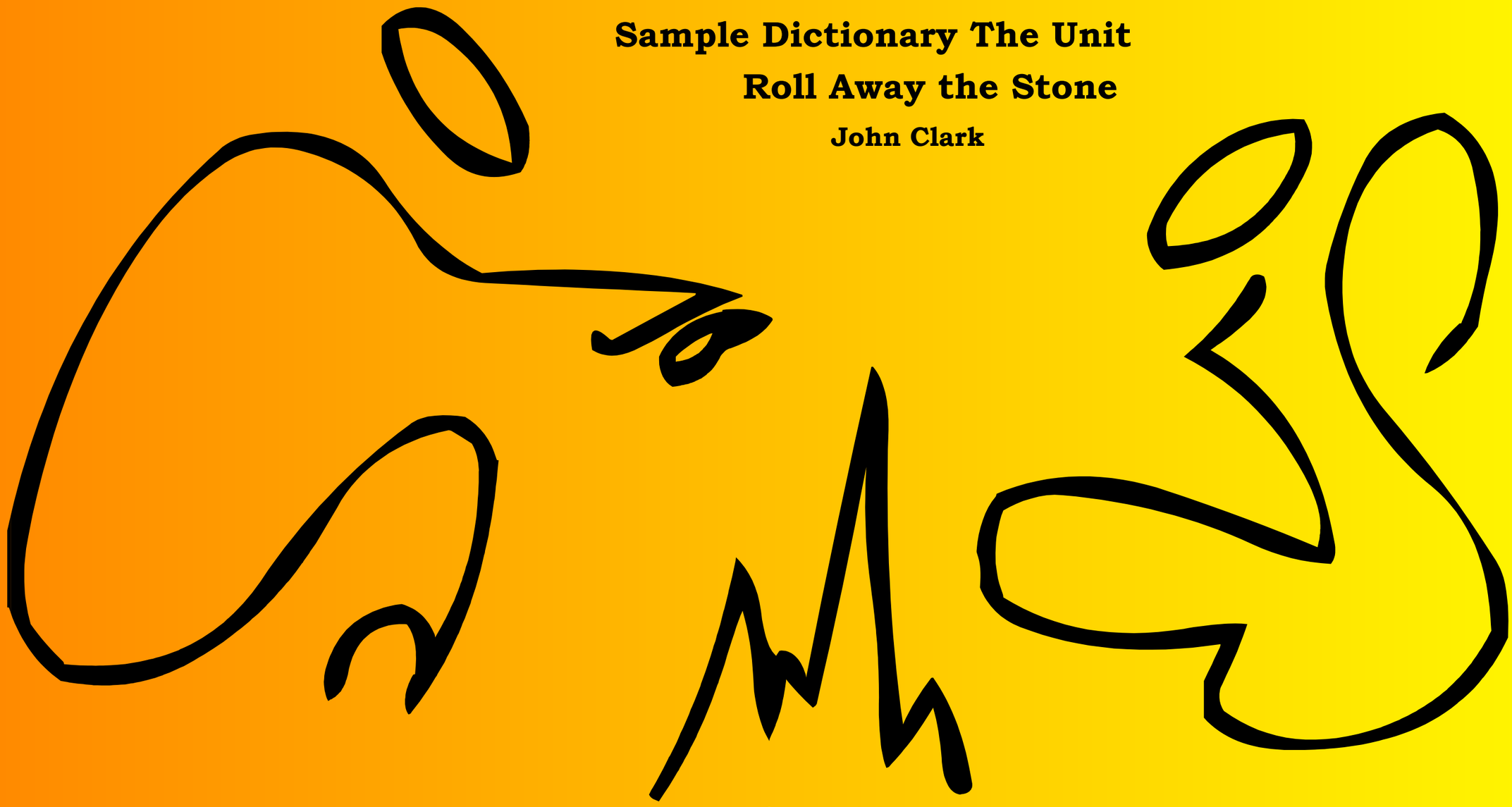
$\frac{N_2+\sqrt{N_2^2-4 \cdot N_1^2}}{2 \cdot N_1} - R = 0.00000$

Basic Analog Grammar

Sample Dictionary The Unit

Roll Away the Stone

John Clark



John 312

Branch One.

Unit.

$AB := 1$

Given.

$N_1 := 1.16207$

$N_2 := .63656$

Descriptions.

$$CE := AB - \frac{N_2}{N_1} \qquad AC := CE$$

$$BN_1 := \sqrt{AB^2 + N_1^2} \qquad GN_1 := \frac{N_1 \cdot (N_1 + AC)}{BN_1}$$

$$BG := BN_1 - GN_1$$

Definitions.

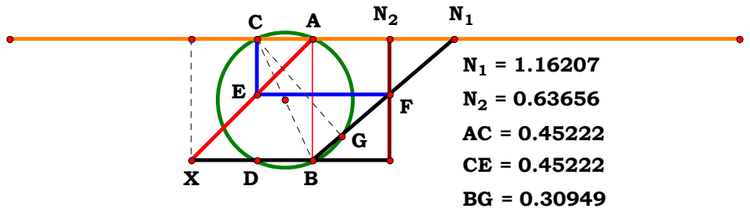
$$CE - \frac{N_1 - N_2}{N_1} = 0 \qquad CE = 0.452219$$

$$AC - \frac{N_1 - N_2}{N_1} = 0 \qquad AC = 0.452219$$

$$BG - \frac{N_2 - N_1 + 1}{\sqrt{N_1^2 + 1}} = 0 \qquad BG = 0.309496$$

Introduction to Roll Away the Stone.

Using a six sample set.



Motions in Roll Away the Stone.

The motion of the circle, or stone, in Roll Away the Stone can be accomplished by any number of structures, I just use a simple sample set in this work.

One of the greatest errors by so called mathematicians is when they ask, how does one compute, or manipulate the indexing system of mathematics to account for such things as time, space, motion, which, in of themselves are not things. Each and every one are just some material difference. One cannot predicate of a predicate no matter what predicate it is. One can no more claim that time slows down, space bends, or motion moves than any other element of a thing. Indexing systems work with any difference using any boundaries and the indexing system is not modified or manipulated any differently for any particular one of them. The indexing system is universal or capable of complete induction, a concept which seems to be on the lips of mathematicians but often lacking in their mind. A mathematician cannot help but to produce fantasy or gibberish and teach that gibberish or fantasy no more than a religious fanatic when basic concepts are not resident in the mind, I do not care if you call them Newton or Einstein or that one preaches that gibberish in the most prestigious colleges and universities.

Branch Two.

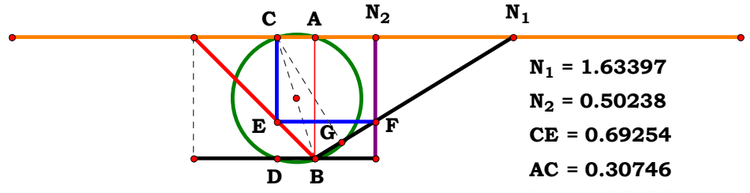
Unit.

$AB := 1$

Given.

$N_1 := 1.63397$

$N_2 := .50238$



$N_1 = 1.63397$

$N_2 = 0.50238$

$CE = 0.69254$

$AC = 0.30746$

$BG = 0.25976$

Descriptions.

$$CE := AB - \frac{N_2}{N_1} \qquad AC := AB - CE$$

$$BN_1 := \sqrt{AB^2 + N_1^2} \qquad GN_1 := \frac{N_1 \cdot (N_1 + AC)}{BN_1}$$

$$BG := BN_1 - GN_1$$

Definitions.

$$CE - \frac{N_1 - N_2}{N_1} = 0 \qquad CE = 0.69254$$

$$AC - \frac{N_2}{N_1} = 0 \qquad AC = 0.30746$$

$$BG - \frac{1 - N_2}{\sqrt{N_1^2 + 1}} = 0 \qquad BG = 0.259761$$

Branch Three.

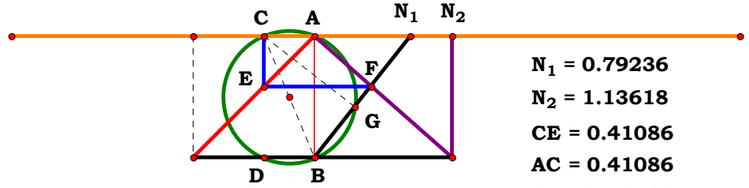
Unit.

$AB := 1$

Given.

$N_1 := .79236$

$N_2 := 1.13618$



$N_1 = 0.79236$

$N_2 = 1.13618$

$CE = 0.41086$

$AC = 0.41086$

$BG = 0.52862$

Descriptions.

$$CE := \frac{N_1}{N_1 + N_2} \qquad AC := CE$$

$$BN_1 := \sqrt{AB^2 + N_1^2} \qquad GN_1 := \frac{N_1 \cdot (N_1 + AC)}{BN_1}$$

$$BG := BN_1 - GN_1$$

Definitions.

$$CE - \frac{N_1}{N_1 + N_2} = 0 \qquad CE = 0.41086$$

$$AC - \frac{N_1}{N_1 + N_2} = 0 \qquad AC = 0.41086$$

$$BG - \frac{N_1 - N_1^2 + N_2}{(N_1 + N_2) \cdot \sqrt{N_1^2 + 1}} = 0 \qquad BG = 0.528622$$

Branch Four.

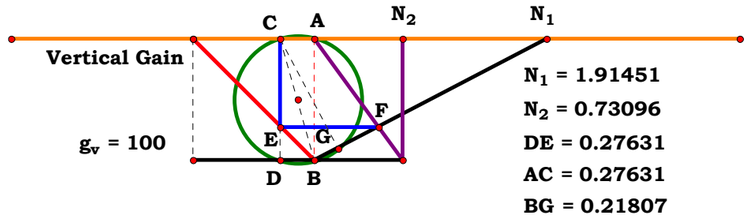
Unit.

$AB := 1$

Given.

$N_1 := 1.91451$

$N_2 := .73096$



Descriptions.

$$DE := \frac{N_2}{N_1 + N_2} \qquad AC := DE$$

$$BN_1 := \sqrt{AB^2 + N_1^2} \qquad GN_1 := \frac{N_1 \cdot (N_1 + AC)}{BN_1}$$

$$BG := BN_1 - GN_1$$

Definitions.

$$DE - \frac{N_2}{N_1 + N_2} = 0 \qquad DE = 0.276306$$

$$AC - \frac{N_2}{N_1 + N_2} = 0 \qquad AC = 0.276306$$

$$BG - \frac{N_1 + N_2 - N_1 \cdot N_2}{(N_1 + N_2) \cdot \sqrt{N_1^2 + 1}} = 0 \qquad BG = 0.218066$$

Branch Five.

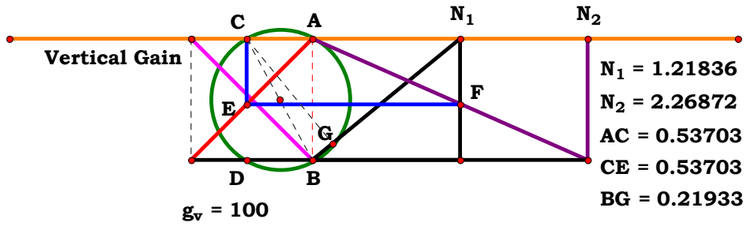
Unit.

$AB := 1$

Given.

$N_1 := 1.21836$

$N_2 := 2.26872$



Descriptions.

$$CE := AB - \frac{N_2 - N_1}{N_2} \qquad AC := CE$$

$$BN_1 := \sqrt{AB^2 + N_1^2} \qquad GN_1 := \frac{N_1 \cdot (N_1 + AC)}{BN_1}$$

$$BG := BN_1 - GN_1$$

Definitions.

$$CE - \frac{N_1}{N_2} = 0 \qquad CE = 0.537025$$

$$AC - \frac{N_1}{N_2} = 0 \qquad AC = 0.537025$$

$$BG - \frac{N_2 - N_1^2}{N_2 \cdot \sqrt{N_1^2 + 1}} = 0 \qquad BG = 0.219331$$

Branch Six.

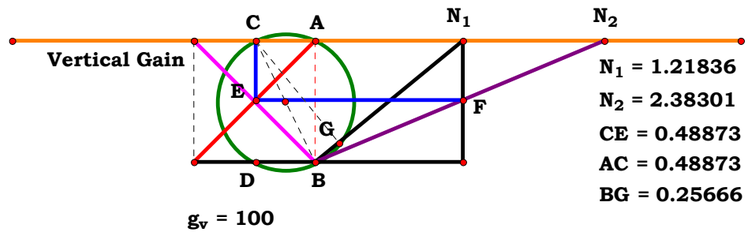
Unit.

$AB := 1$

Given.

$N_1 := 1.21836$

$N_2 := 2.38301$



Descriptions.

$$CE := \frac{N_2 - N_1}{N_2} \qquad AC := CE$$

$$BN_1 := \sqrt{AB^2 + N_1^2} \qquad GN_1 := \frac{N_1 \cdot (N_1 + AC)}{BN_1}$$

$$BG := BN_1 - GN_1$$

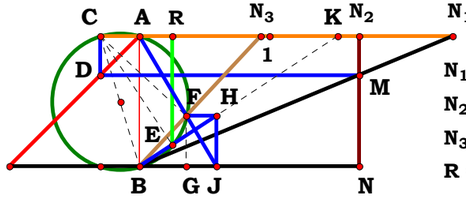
Definitions.

$$CE - \frac{N_2 - N_1}{N_2} = 0 \qquad CE = 0.488731$$

$$AC - \frac{N_2 - N_1}{N_2} = 0 \qquad AC = 0.488731$$

$$BG - \frac{N_1^2 - N_1 \cdot N_2 + N_2}{N_2 \cdot \sqrt{N_1^2 + 1}} = 0 \qquad BG = 0.256662$$

4RST1AB1R0



$N_1 = 2.39948$
$N_2 = 1.68273$
$N_3 = 0.93197$
$R = 0.25102$

Unit. $AB := 1$ Given. $N_1 := 2.39948$ $N_2 := 1.68273$ $N_3 := .93197$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

$AC := \frac{N_1 - N_2}{N_1}$ $BN_3 := \sqrt{N_3^2 + AB^2}$ $CN_3 := N_3 + AC$

$FN_3 := \frac{N_3 \cdot CN_3}{BN_3}$ $BF := BN_3 - FN_3$ $FG := \frac{AB \cdot BF}{BN_3}$

$BG := \frac{N_3 \cdot BF}{BN_3}$ $GJ := \frac{BG \cdot BF}{FN_3}$ $BJ := BG + GJ$

$HJ := FG$ $AK := \frac{BJ \cdot AB}{HJ}$ $BK := \sqrt{AK^2 + AB^2}$

$CK := AK + AC$ $EK := \frac{AK \cdot CK}{BK}$ $BE := BK - EK$

$R := \frac{AK \cdot BE}{BK}$ $R = 0.251022$

Definitions.

$$R - \frac{N_3 \cdot \left(N_3^2 + 1\right) \cdot \left(1 - AC \cdot N_3\right)}{AC^2 + 2 \cdot AC \cdot N_3 + N_3^4 + 3 \cdot N_3^2 + 1} = 0$$

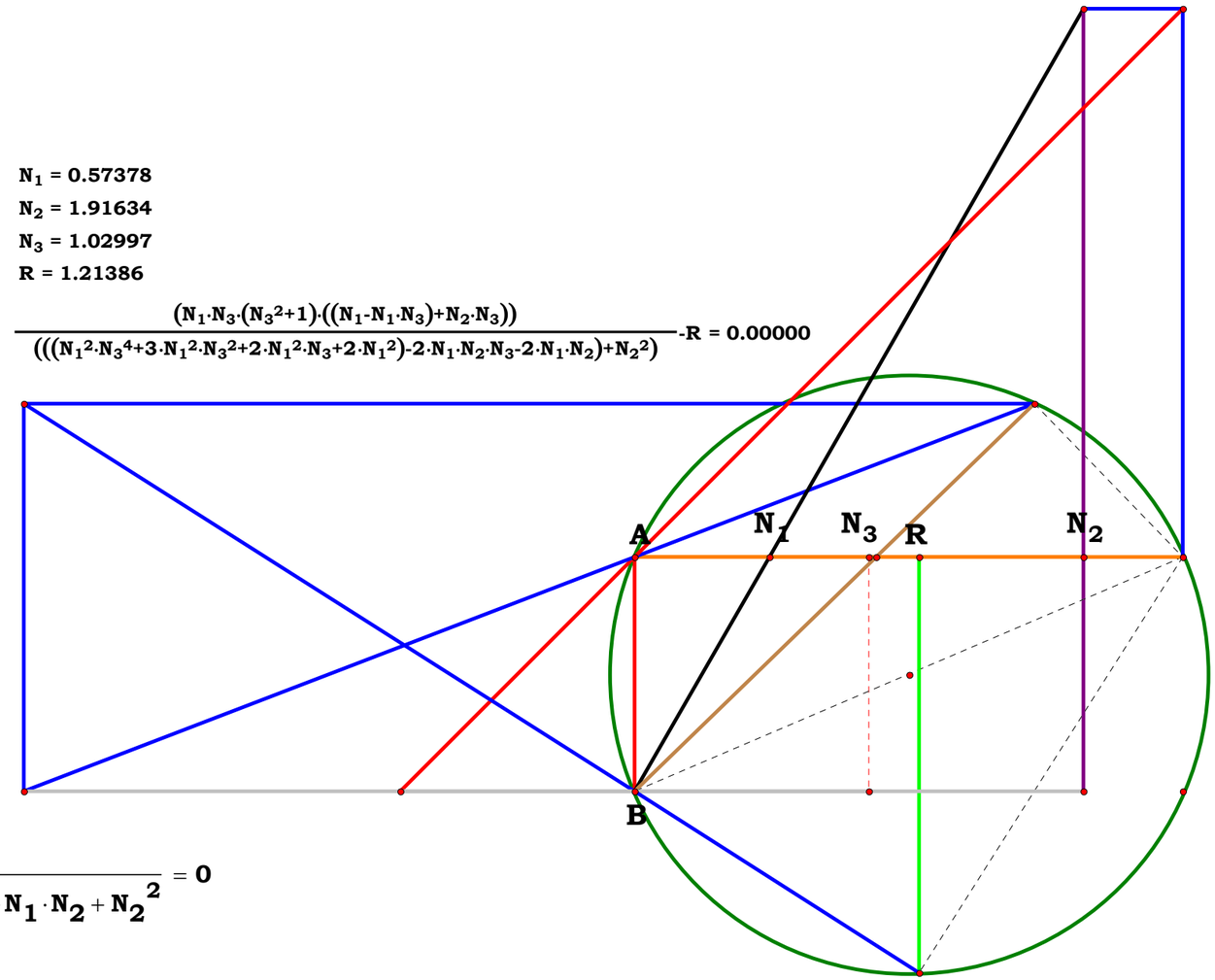
$$R - \frac{N_1 \cdot N_3 \cdot \left(N_3^2 + 1\right) \cdot \left(N_1 - N_1 \cdot N_3 + N_2 \cdot N_3\right)}{N_1^2 \cdot N_3^4 + 3 \cdot N_1^2 \cdot N_3^2 + 2 \cdot N_1^2 \cdot N_3 + 2 \cdot N_1^2 - 2 \cdot N_1 \cdot N_2 \cdot N_3 - 2 \cdot N_1 \cdot N_2 + N_2^2} = 0$$

$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$

$$R - \frac{B \cdot N_u \cdot \left(C^2 + N_u^2\right) \cdot \left(B \cdot C + A \cdot N_u - B \cdot N_u\right)}{B^2 \cdot N_u^4 + 3 \cdot B^2 \cdot C^2 \cdot N_u^2 - 2 \cdot N_u \cdot B \cdot C^3 \cdot (A - B) + C^4 \cdot \left(A^2 - 2 \cdot A \cdot B + 2 \cdot B^2\right)} = 0$$

$N_1 = 0.57378$
$N_2 = 1.91634$
$N_3 = 1.02997$
$R = 1.21386$

$$\frac{(N_1 \cdot N_3 \cdot (N_3{}^2+1) \cdot ((N_1 - N_1 \cdot N_3) + N_2 \cdot N_3))}{(((N_1{}^2 \cdot N_3{}^4 + 3 \cdot N_1{}^2 \cdot N_3{}^2 + 2 \cdot N_1{}^2 \cdot N_3 + 2 \cdot N_1{}^2) - 2 \cdot N_1 \cdot N_2 \cdot N_3 - 2 \cdot N_1 \cdot N_2) + N_2{}^2)} - R = 0.00000$$



$$N_1 - \frac{X}{o} = 0 \qquad N_2 - \frac{Y}{p} = 0 \qquad N_3 - \frac{Z}{q} = 0$$

$$R - \frac{X \cdot Z \cdot p \cdot \left(Z^2 + q^2\right) \cdot (Y \cdot Z \cdot o - X \cdot Z \cdot p + X \cdot p \cdot q)}{X^2 \cdot p^2 \cdot \left(Z^4 + 3 \cdot Z^2 \cdot q^2 + 2 \cdot Z \cdot q^3 + 2 \cdot q^4\right) - 2 \cdot X \cdot Y \cdot o \cdot p \cdot q^3 \cdot (Z + q) + Y^2 \cdot o^2 \cdot q^4} = 0$$

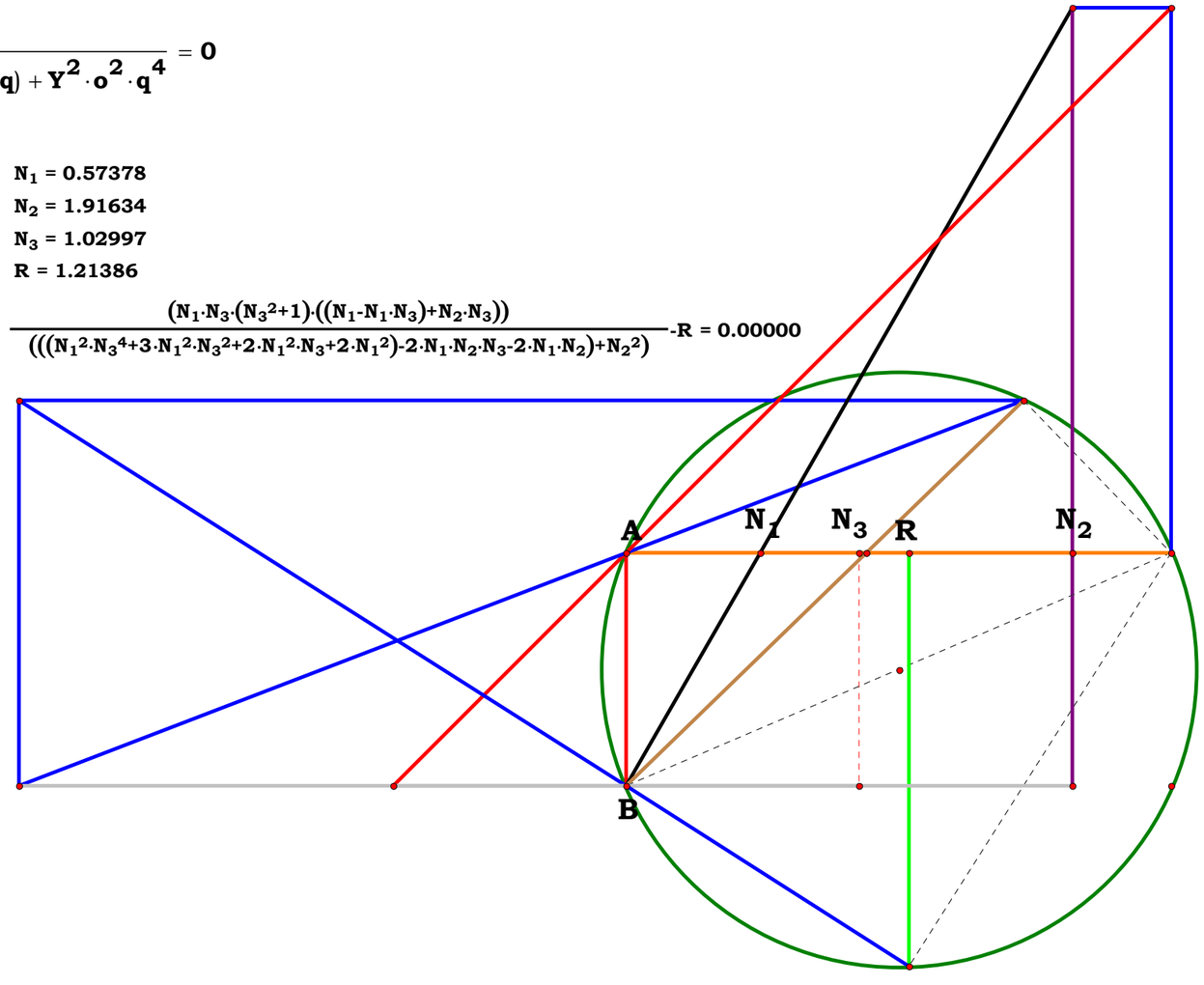
$N_1 = 0.57378$

$N_2 = 1.91634$

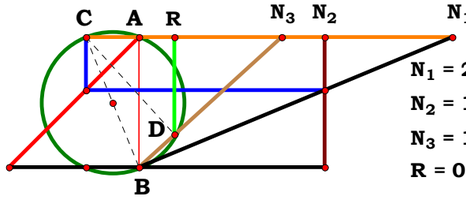
$N_3 = 1.02997$

$R = 1.21386$

$$\frac{(N_1 \cdot N_3 \cdot (N_3{}^2+1) \cdot ((N_1 - N_1 \cdot N_3) + N_2 \cdot N_3))}{(((N_1{}^2 \cdot N_3{}^4 + 3 \cdot N_1{}^2 \cdot N_3{}^2 + 2 \cdot N_1{}^2 \cdot N_3 + 2 \cdot N_1{}^2) - 2 \cdot N_1 \cdot N_2 \cdot N_3 - 2 \cdot N_1 \cdot N_2) + N_2{}^2)} - R = 0.00000$$



4RST1AB1R1



$N_1 = 2.39948$

$N_2 = 1.42122$

$N_3 = 1.09663$

$R = 0.27528$

Unit. $AB := 1$ **Given.** $N_1 := 2.39948$ $N_2 := 1.42122$ $N_3 := 1.09663$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

$AC := \frac{N_1 - N_2}{N_1}$ $BN_3 := \sqrt{N_3^2 + AB^2}$

$CN_3 := N_3 + AC$ $DN_3 := \frac{N_3 \cdot CN_3}{BN_3}$

$BD := BN_3 - DN_3$ $R := \frac{N_3 \cdot BD}{BN_3}$

$R = 0.275282$

Definitions.

$R - \frac{N_3 \cdot (1 - AC \cdot N_3)}{N_3^2 + 1} = 0$

$R - \frac{N_3 \cdot (N_1 - N_1 \cdot N_3 + N_2 \cdot N_3)}{N_1 \cdot (N_3^2 + 1)} = 0$

$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$

$R - \frac{N_u \cdot (B \cdot C + A \cdot N_u - B \cdot N_u)}{B \cdot (C^2 + N_u^2)} = 0$

$N_1 - \frac{X}{o} = 0$ $N_2 - \frac{Y}{p} = 0$ $N_3 - \frac{Z}{q} = 0$

$R - \frac{Z \cdot (Y \cdot Z \cdot o - X \cdot Z \cdot p + X \cdot p \cdot q)}{X \cdot p \cdot (Z^2 + q^2)} = 0$

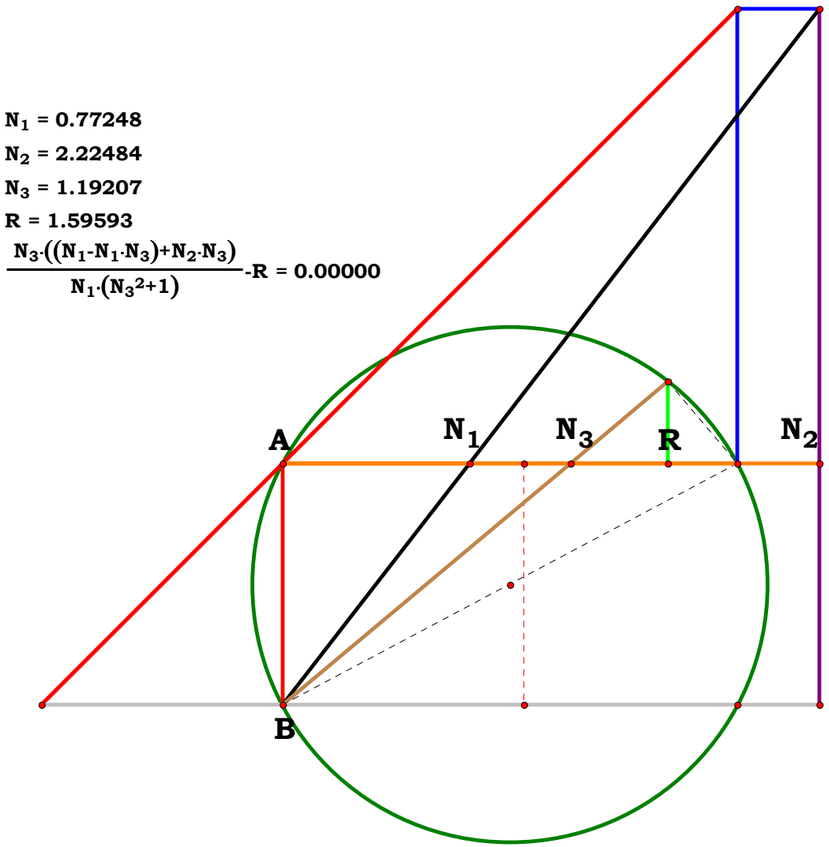
$N_1 = 0.77248$

$N_2 = 2.22484$

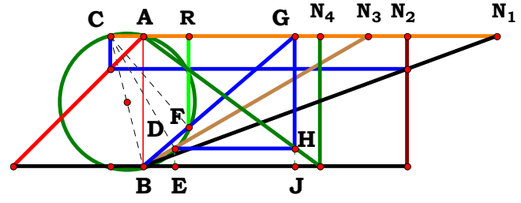
$N_3 = 1.19207$

$R = 1.59593$

$\frac{N_3 \cdot ((N_1 - N_1 \cdot N_3) + N_2 \cdot N_3)}{N_1 \cdot (N_3^2 + 1)} - R = 0.00000$



4RST1AB1R2



$N_1 = 2.70943$
$N_2 = 2.02174$
$N_3 = 1.72621$
$N_4 = 1.35578$
$R = 0.34819$

Unit. $AB := 1$ Given. $N_1 := 2.70943$ $N_2 := 2.02174$ $N_3 := 1.72621$ $N_4 := 1.35578$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

$AC := \frac{N_1 - N_2}{N_1}$ $BN_3 := \sqrt{N_3^2 + AB^2}$

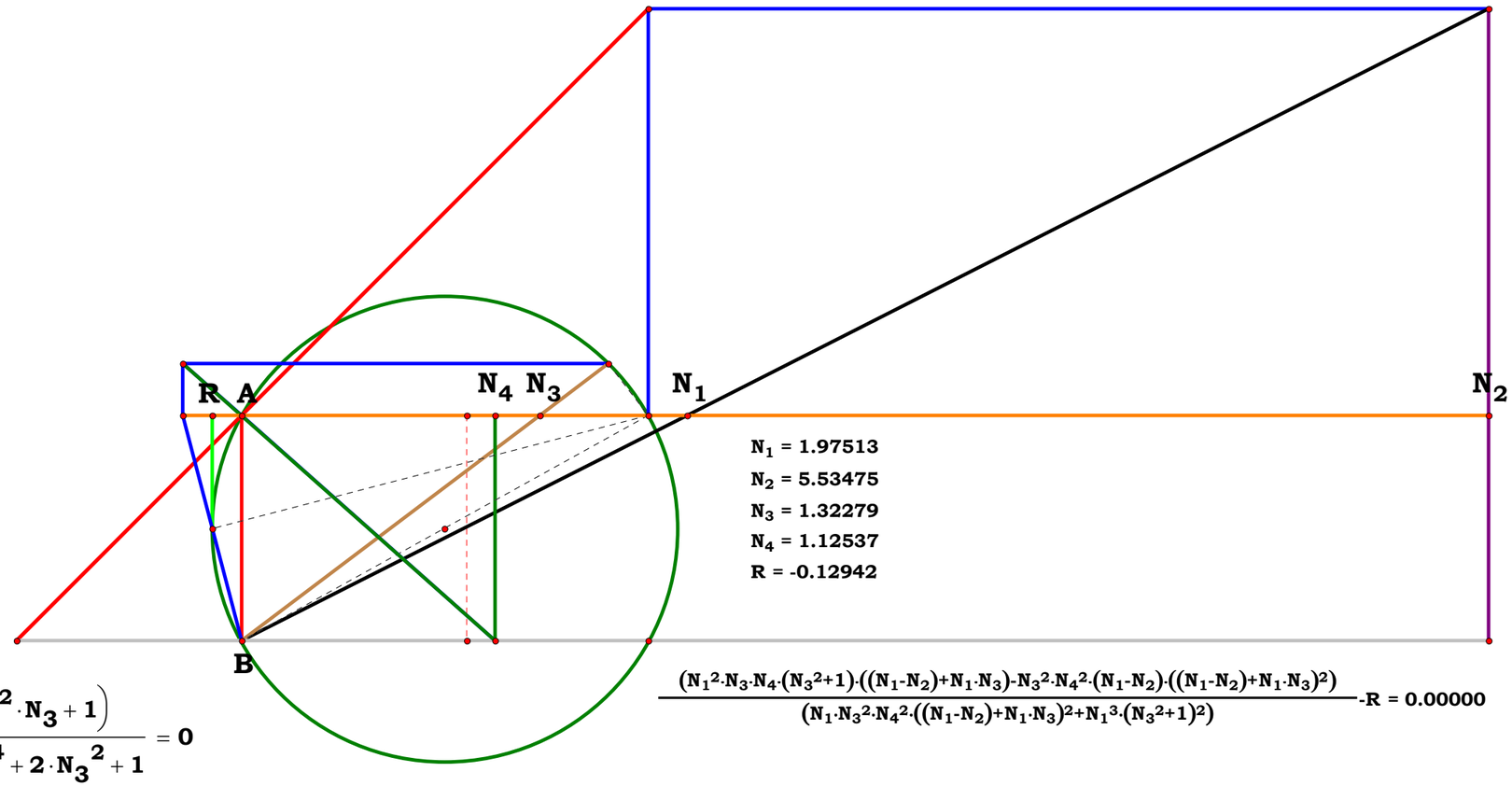
$CN_3 := N_3 + AC$ $EN_3 := \frac{N_3 \cdot CN_3}{BN_3}$

$EF := AB \cdot \left(\frac{BN_3 - EN_3}{BN_3} \right)$ $AG := N_4 \cdot (AB - EF)$

$BG := \sqrt{AG^2 + AB^2}$ $CG := AG + AC$

$FG := \frac{AG \cdot CG}{BG}$ $R := AG \cdot \left(\frac{BG - FG}{BG} \right)$

$R = 0.348194$



$N_1 = 1.97513$
$N_2 = 5.53475$
$N_3 = 1.32279$
$N_4 = 1.12537$
$R = -0.12942$

$$\frac{(N_1^2 \cdot N_3 \cdot N_4 \cdot (N_3^2+1) \cdot ((N_1-N_2)+N_1 \cdot N_3) - N_3^2 \cdot N_4^2 \cdot (N_1-N_2) \cdot ((N_1-N_2)+N_1 \cdot N_3)^2)}{(N_1 \cdot N_3^2 \cdot N_4^2 \cdot ((N_1-N_2)+N_1 \cdot N_3)^2 + N_1^3 \cdot (N_3^2+1)^2)} - R = 0.00000$$

Definitions.

$$R - \frac{N_3 \cdot N_4 \cdot (AC + N_3) \cdot (N_3^2 - N_4 \cdot AC \cdot N_3^2 - N_4 \cdot AC^2 \cdot N_3 + 1)}{AC^2 \cdot N_3^2 \cdot N_4^2 + 2 \cdot AC \cdot N_3^3 \cdot N_4^2 + N_3^4 \cdot N_4^2 + N_3^4 + 2 \cdot N_3^2 + 1} = 0$$

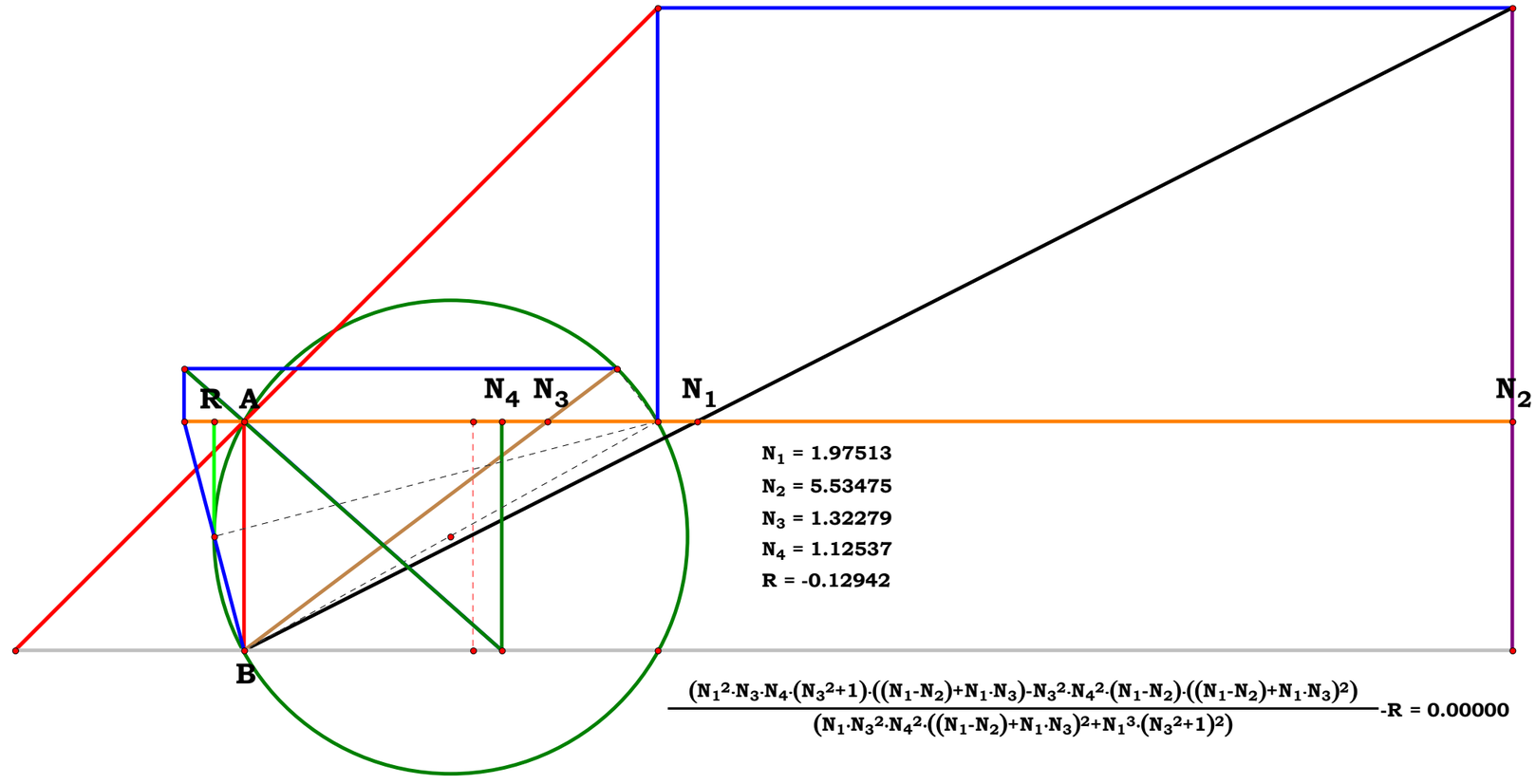
$$R - \frac{N_1^2 \cdot N_3 \cdot N_4 \cdot (N_3^2 + 1) \cdot (N_1 - N_2 + N_1 \cdot N_3) - N_3^2 \cdot N_4^2 \cdot (N_1 - N_2) \cdot (N_1 - N_2 + N_1 \cdot N_3)^2}{N_1 \cdot N_3^2 \cdot N_4^2 \cdot (N_1 - N_2 + N_1 \cdot N_3)^2 + N_1^3 \cdot (N_3^2 + 1)^2} = 0$$

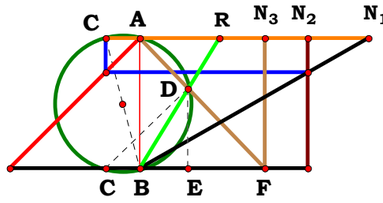
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{N_u^2 \cdot (A \cdot C - B \cdot C - B \cdot N_u) \cdot \left[(B^2 - A \cdot B) \cdot N_u^3 + N_u^2 \cdot \left[C \cdot (A^2 + B^2) - B^2 \cdot D - 2 \cdot A \cdot B \cdot C \right] - B^2 \cdot C^2 \cdot D \right]}{B \cdot \left[B^2 \cdot N_u^6 + -2 \cdot N_u^5 \cdot B \cdot C \cdot (A - B) + N_u^4 \cdot (A^2 \cdot C^2 - 2 \cdot A \cdot B \cdot C^2 + B^2 \cdot C^2 + B^2 \cdot D^2) + B^2 \cdot C^2 \cdot D^2 \cdot (C^2 + 2 \cdot N_u^2) \right]} = 0$$

$$N_1 - \frac{W}{m} = 0 \quad N_2 - \frac{X}{n} = 0 \quad N_3 - \frac{Y}{o} = 0 \quad N_4 - \frac{Z}{p} = 0$$

$$R - \frac{Y \cdot Z \cdot (W \cdot Y \cdot n + W \cdot n \cdot o - X \cdot m \cdot o) \cdot \left[Z \cdot Y \cdot (X \cdot m - W \cdot n) \cdot (W \cdot Y \cdot n + W \cdot n \cdot o - X \cdot m \cdot o) + W^2 \cdot n^2 \cdot p \cdot \left(Y^2 + o^2 \right) \right]}{n \cdot W \cdot \left[Z^2 \cdot Y^2 \cdot (W \cdot Y \cdot n + W \cdot n \cdot o - X \cdot m \cdot o)^2 + W^2 \cdot n^2 \cdot p^2 \cdot \left(Y^2 + o^2 \right)^2 \right]} = 0$$





$N_1 = 1.75053$
$N_2 = 1.28562$
$N_3 = 0.96103$
$R = 0.60717$

Unit. $AB := 1$ **Given.** $N_1 := 1.75053$ $N_2 := 1.28562$ $N_3 := .96103$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

$BC := \frac{N_1 - N_2}{N_1}$ $AF := \sqrt{N_3^2 + AB^2}$

$CF := N_3 + BC$ $DF := \frac{N_3 \cdot CF}{AF}$

$BE := \frac{N_3 \cdot (AF - DF)}{AF}$ $R := \frac{AF \cdot BE}{DF}$

$R = 0.607174$

Definitions.

$$R - \left(\frac{BC^2 + 1}{BC + N_3} - BC \right) = 0$$

$$R - \frac{N_1 - N_1 \cdot N_3 + N_2 \cdot N_3}{N_1 - N_2 + N_1 \cdot N_3} = 0$$

$$N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0$$

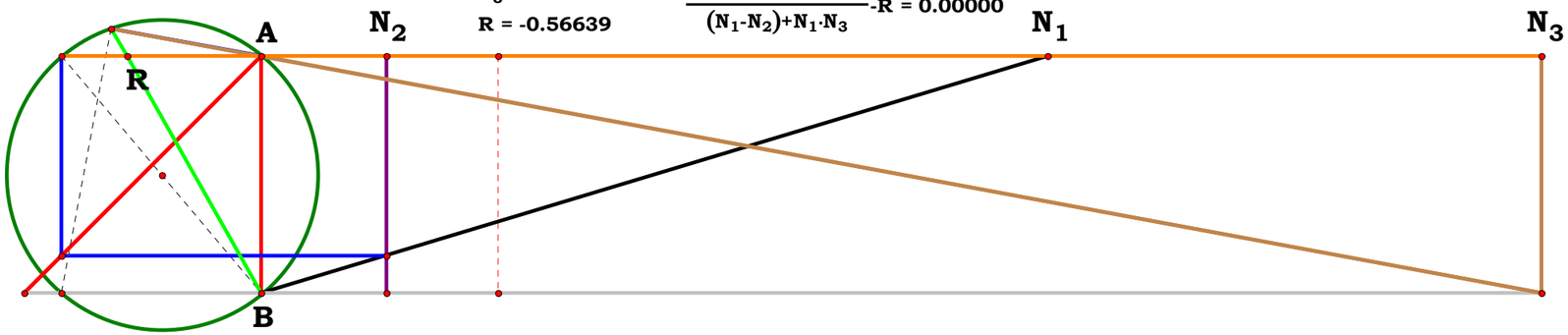
$$R - \frac{B \cdot C + N_u \cdot (A - B)}{C \cdot (B - A) + B \cdot N_u} = 0$$

$$N_1 - \frac{X}{o} = 0 \quad N_2 - \frac{Y}{p} = 0 \quad N_3 - \frac{Z}{q} = 0$$

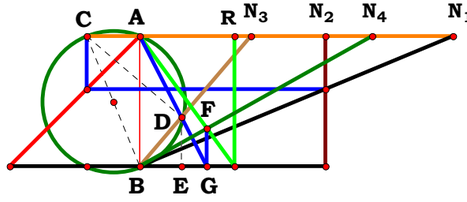
$$R - \frac{Y \cdot Z \cdot o - X \cdot Z \cdot p + X \cdot p \cdot q}{X \cdot Z \cdot p + X \cdot p \cdot q - Y \cdot o \cdot q} = 0$$

$N_1 = 3.31374$
$N_2 = 0.53067$
$N_3 = 5.39612$
$R = -0.56639$

$\frac{(N_1 - N_1 \cdot N_3) + N_2 \cdot N_3}{(N_1 - N_2) + N_1 \cdot N_3} - R = 0.00000$



4RST1AB1R4



$N_1 = 2.39948$
$N_2 = 1.42122$
$N_3 = 0.85448$
$N_4 = 1.78196$
$R = 0.72686$

Unit. $AB := 1$ **Given.** $N_1 := 2.39948$ $N_2 := 1.42122$ $N_3 := .85448$ $N_4 := 1.78196$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

$AC := \frac{N_1 - N_2}{N_1}$ $CN_3 := N_3 + AC$

$BN_3 := \sqrt{N_3^2 + AB^2}$ $DN_3 := \frac{N_3 \cdot CN_3}{BN_3}$

$BD := BN_3 - DN_3$ $BE := \frac{N_3 \cdot BD}{BN_3}$

$BG := \frac{BE \cdot BN_3}{DN_3}$ $FG := \frac{AB \cdot BG}{N_4}$

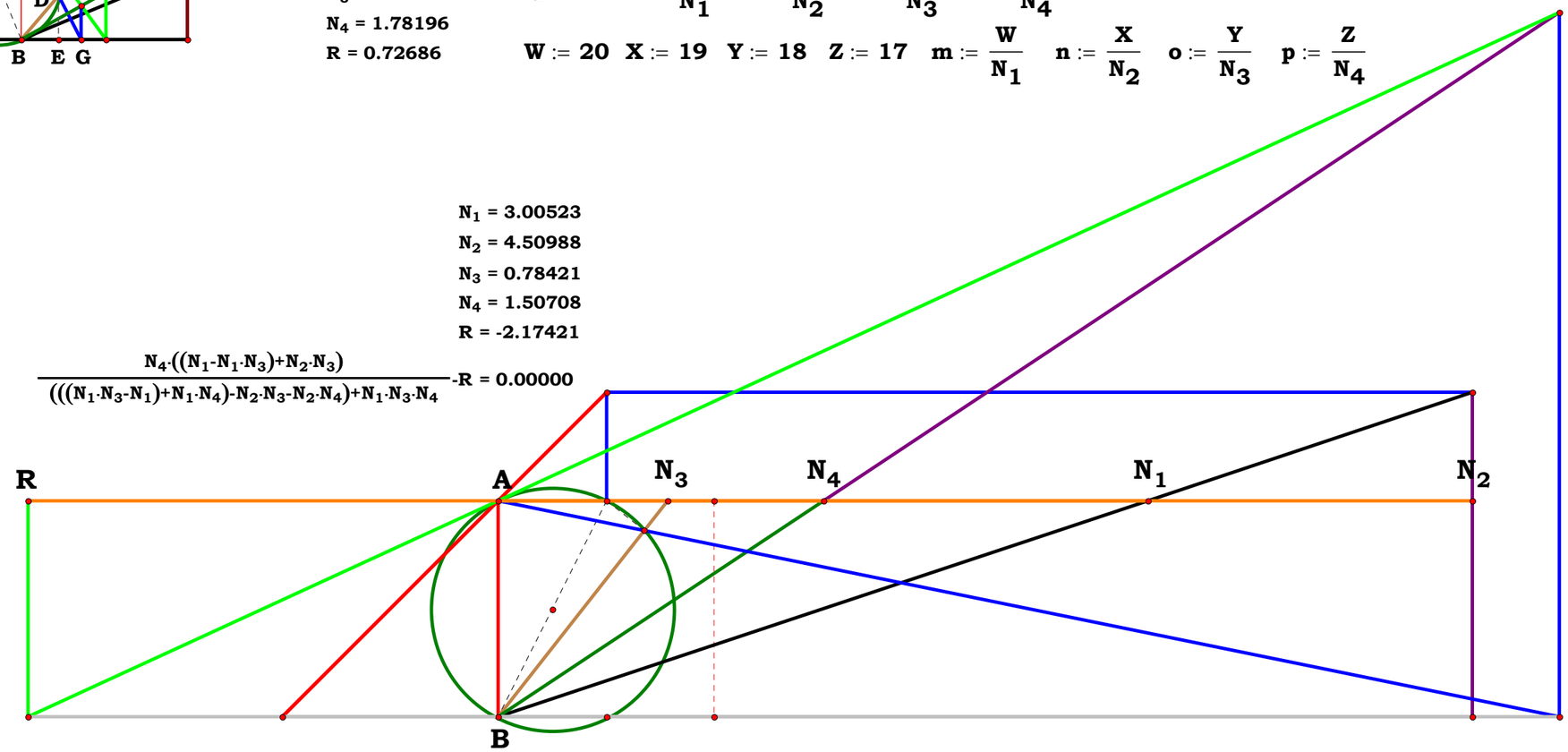
$R := \frac{BG \cdot AB}{AB - FG}$ $R = 0.726866$

Definitions.

$$R - \frac{N_4 - AC \cdot N_3 \cdot N_4}{AC \cdot N_3 + AC \cdot N_4 + N_3 \cdot N_4 - 1} = 0$$

$N_1 = 3.00523$
$N_2 = 4.50988$
$N_3 = 0.78421$
$N_4 = 1.50708$
$R = -2.17421$

$$\frac{N_4 \cdot ((N_1 - N_1 \cdot N_3) + N_2 \cdot N_3)}{(((N_1 \cdot N_3 - N_1) + N_1 \cdot N_4) - N_2 \cdot N_3 - N_2 \cdot N_4) + N_1 \cdot N_3 \cdot N_4} - R = 0.00000$$



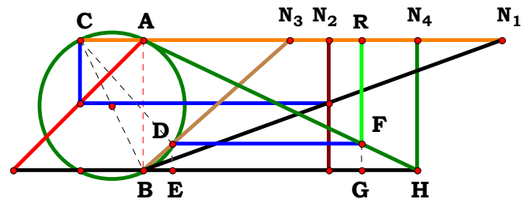
$$R - \frac{N_4 \cdot (N_1 - N_1 \cdot N_3 + N_2 \cdot N_3)}{N_1 \cdot N_3 - N_1 + N_1 \cdot N_4 - N_2 \cdot N_3 - N_2 \cdot N_4 + N_1 \cdot N_3 \cdot N_4} = 0$$

$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{N_u \cdot [B \cdot C + N_u \cdot (A - B)]}{B \cdot N_u^2 - N_u \cdot (C + D) \cdot (A - B) - B \cdot C \cdot D} = 0$$ $N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{X \cdot Y \cdot Z \cdot m - W \cdot Y \cdot Z \cdot n + W \cdot Z \cdot n \cdot o}{W \cdot n \cdot (Y \cdot Z + Y \cdot p + Z \cdot o - o \cdot p) - X \cdot m \cdot (Y \cdot p + Z \cdot o)} = 0$$

4RST1AB1R5



$N_1 = 2.74817$
$N_2 = 1.42122$
$N_3 = 1.12569$
$N_4 = 2.10159$
$R = 1.67846$

Unit. $AB := 1$ Given. $N_1 := 2.74817$ $N_2 := 1.42122$ $N_3 := 1.12569$ $N_4 := 2.10159$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

$AC := \frac{N_1 - N_2}{N_1}$ $CN_3 := AC + N_3$

$BN_3 := \sqrt{N_3^2 + AB^2}$ $DN_3 := \frac{CN_3 \cdot N_3}{BN_3}$

$BD := BN_3 - DN_3$ $DE := \frac{AB \cdot BD}{BN_3}$

$R := N_4 \cdot (AB - DE)$ $R = 1.678466$

Definitions.

$N_3 \cdot N_4 \cdot (AC + N_3)$

$R - \frac{N_3 \cdot N_4 \cdot (AC + N_3)}{N_3^2 + 1} = 0$

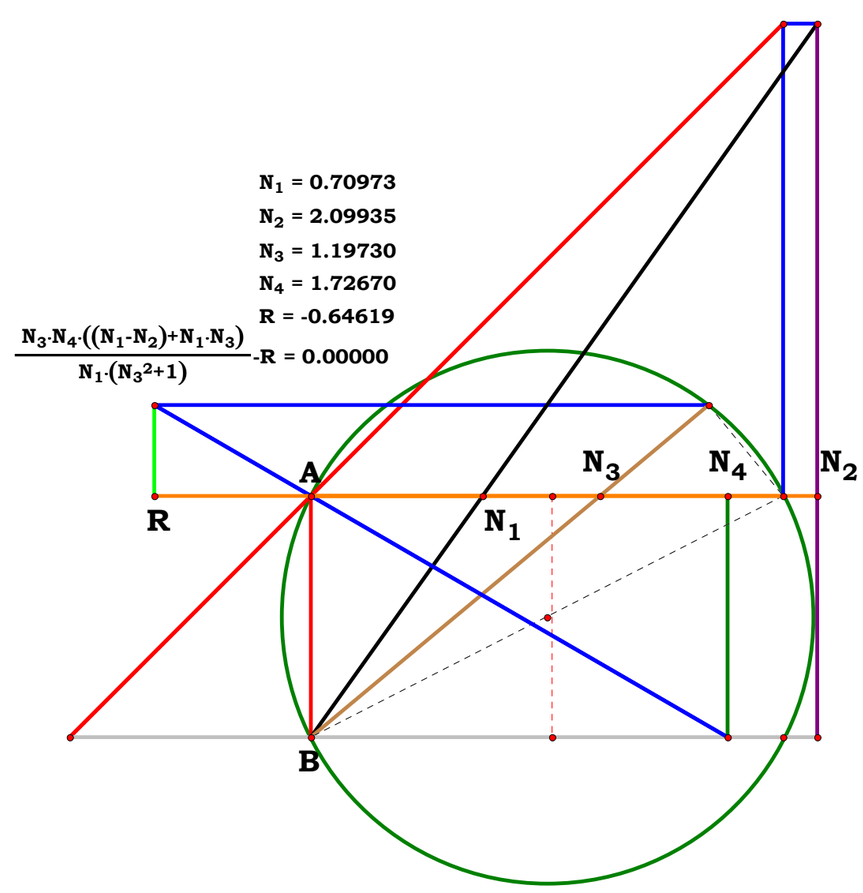
$R - \frac{N_3 \cdot N_4 \cdot (N_1 - N_2 + N_1 \cdot N_3)}{N_1 \cdot (N_3^2 + 1)} = 0$

$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

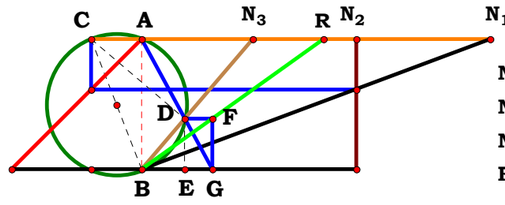
$R - \frac{N_u^2 \cdot [C \cdot (B - A) + B \cdot N_u]}{B \cdot D \cdot (C^2 + N_u^2)} = 0$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$R - \frac{Y \cdot Z \cdot (W \cdot Y \cdot n + W \cdot n \cdot o - X \cdot m \cdot o)}{p \cdot W \cdot n \cdot (Y^2 + o^2)} = 0$



4RST1AB1R6



$N_1 = 2.67068$
$N_2 = 1.64399$
$N_3 = 0.85448$
$R = 1.39650$

Unit. $AB := 1$ **Given.** $N_1 := 2.67068$ $N_2 := 1.64399$ $N_3 := .85448$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

$AC := \frac{N_1 - N_2}{N_1}$ $CN_3 := AC + N_3$ $BN_3 := \sqrt{N_3^2 + AB^2}$

$DN_3 := \frac{CN_3 \cdot N_3}{BN_3}$ $BD := BN_3 - DN_3$ $DE := \frac{AB \cdot BD}{BN_3}$

$BE := N_3 \cdot DE$ $BG := \frac{BE \cdot AB}{(AB - DE)}$ $R := \frac{BG \cdot AB}{DE}$

$R = 1.396498$

Definitions.

$$R - \frac{N_3^2 + 1}{AC + N_3} = 0$$

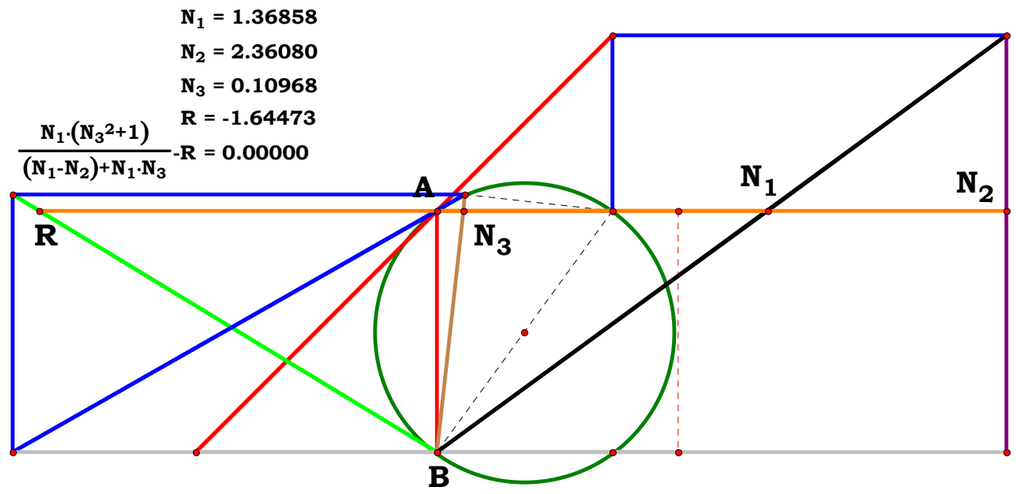
$$R - \frac{N_1 \cdot \left(N_3^2 + 1\right)}{N_1 - N_2 + N_1 \cdot N_3} = 0$$

$$N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0$$

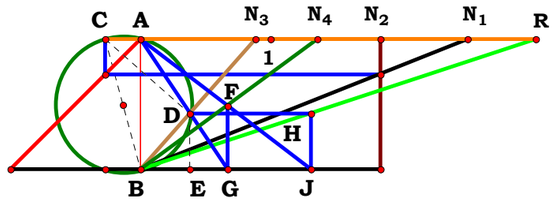
$$R - \frac{B \cdot \left(C^2 + N_u^2\right)}{C \cdot \left[C \cdot (B - A) + B \cdot N_u\right]} = 0$$

$$N_1 - \frac{X}{o} = 0 \quad N_2 - \frac{Y}{p} = 0 \quad N_3 - \frac{Z}{q} = 0$$

$$R - \frac{X \cdot p \cdot \left(Z^2 + q^2\right)}{q \cdot (X \cdot Z \cdot p + X \cdot p \cdot q - Y \cdot o \cdot q)} = 0$$



4RST1AB1R7



$N_1 = 2.50603$
$N_2 = 1.83771$
$N_3 = 0.88354$
$N_4 = 1.35578$
$R = 3.03637$

Unit. $AB := 1$ **Given.** $N_1 := 2.50603$ $N_2 := 1.83771$ $N_3 := .88354$ $N_4 := 1.35578$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

$AC := \frac{N_1 - N_2}{N_1}$ $BN_3 := \sqrt{N_3^2 + AB^2}$ $CN_3 := N_3 + AC$

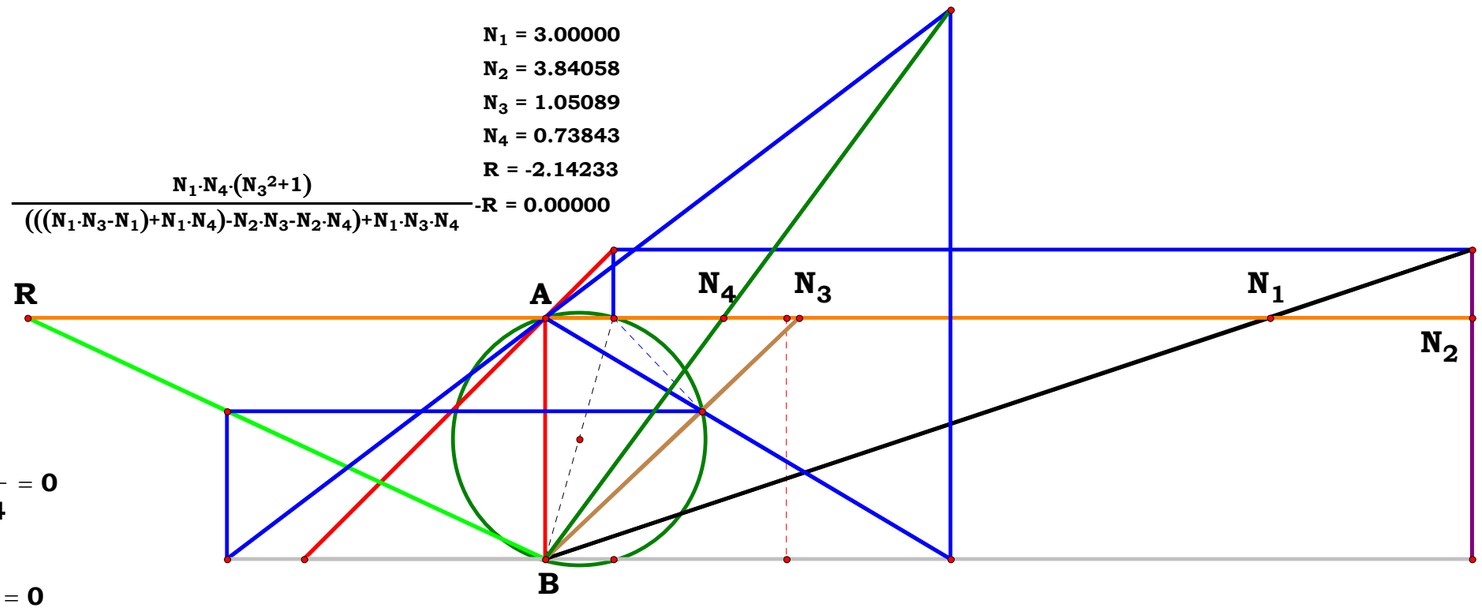
$DN_3 := \frac{N_3 \cdot CN_3}{BN_3}$ $BD := BN_3 - DN_3$ $BE := \frac{N_3 \cdot BD}{BN_3}$

$DE := \frac{AB \cdot BD}{BN_3}$ $BG := \frac{BE \cdot AB}{AB - DE}$ $FG := \frac{AB \cdot BG}{N_4}$

$BJ := \frac{BG}{AB - FG}$ $R := \frac{BJ \cdot AB}{DE}$ $R = 3.03638$

$\frac{N_1 \cdot N_4 \cdot (N_3^2+1)}{(((N_1 \cdot N_3 - N_1) + N_1 \cdot N_4) - N_2 \cdot N_3 - N_2 \cdot N_4) + N_1 \cdot N_3 \cdot N_4}$ $-R = 0.00000$

$N_1 = 3.00000$
$N_2 = 3.84058$
$N_3 = 1.05089$
$N_4 = 0.73843$
$R = -2.14233$



Definitions.

$$R - \frac{N_4 \cdot (N_3^2 + 1)}{AC \cdot N_3 + AC \cdot N_4 + N_3 \cdot N_4 - 1} = 0$$

$$R - \frac{N_1 \cdot N_4 \cdot (N_3^2 + 1)}{N_1 \cdot N_3 - N_1 + N_1 \cdot N_4 - N_2 \cdot N_3 - N_2 \cdot N_4 + N_1 \cdot N_3 \cdot N_4} = 0$$

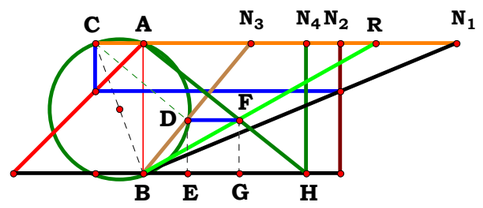
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{B \cdot N_u \cdot (C^2 + N_u^2)}{C \cdot [B \cdot N_u^2 + N_u \cdot (C + D) \cdot (B - A) - B \cdot C \cdot D]} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{W \cdot Z \cdot n \cdot (Y^2 + o^2)}{o \cdot (W \cdot Y \cdot Z \cdot n + W \cdot Y \cdot n \cdot p + W \cdot Z \cdot n \cdot o - X \cdot Y \cdot m \cdot p - X \cdot Z \cdot m \cdot o - W \cdot n \cdot o \cdot p)} = 0$$

4RST1AB1R8



$N_1 = 2.39948$
$N_2 = 1.50839$
$N_3 = 0.82543$
$N_4 = 1.24924$
$R = 1.77959$

Unit. $AB := 1$ **Given.** $N_1 := 2.39948$ $N_2 := 1.50839$ $N_3 := .82543$ $N_4 := 1.24924$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

$$AC := \frac{N_1 - N_2}{N_1} \qquad CN_3 := N_3 + AC$$

$$BN_3 := \sqrt{N_3^2 + AB^2} \qquad DN_3 := \frac{N_3 \cdot CN_3}{BN_3}$$

$$DE := \frac{AB \cdot (BN_3 - DN_3)}{BN_3} \qquad BG := N_4 \cdot (AB - DE)$$

$$R := \frac{BG \cdot AB}{DE} \qquad R = 1.779608$$

Definitions.

$$R - \frac{N_3 \cdot N_4 \cdot (AC + N_3)}{(1 - AC \cdot N_3)} = 0$$

$$R - \frac{N_3 \cdot N_4 \cdot (N_1 - N_2 + N_1 \cdot N_3)}{N_1 - N_1 \cdot N_3 + N_2 \cdot N_3} = 0$$

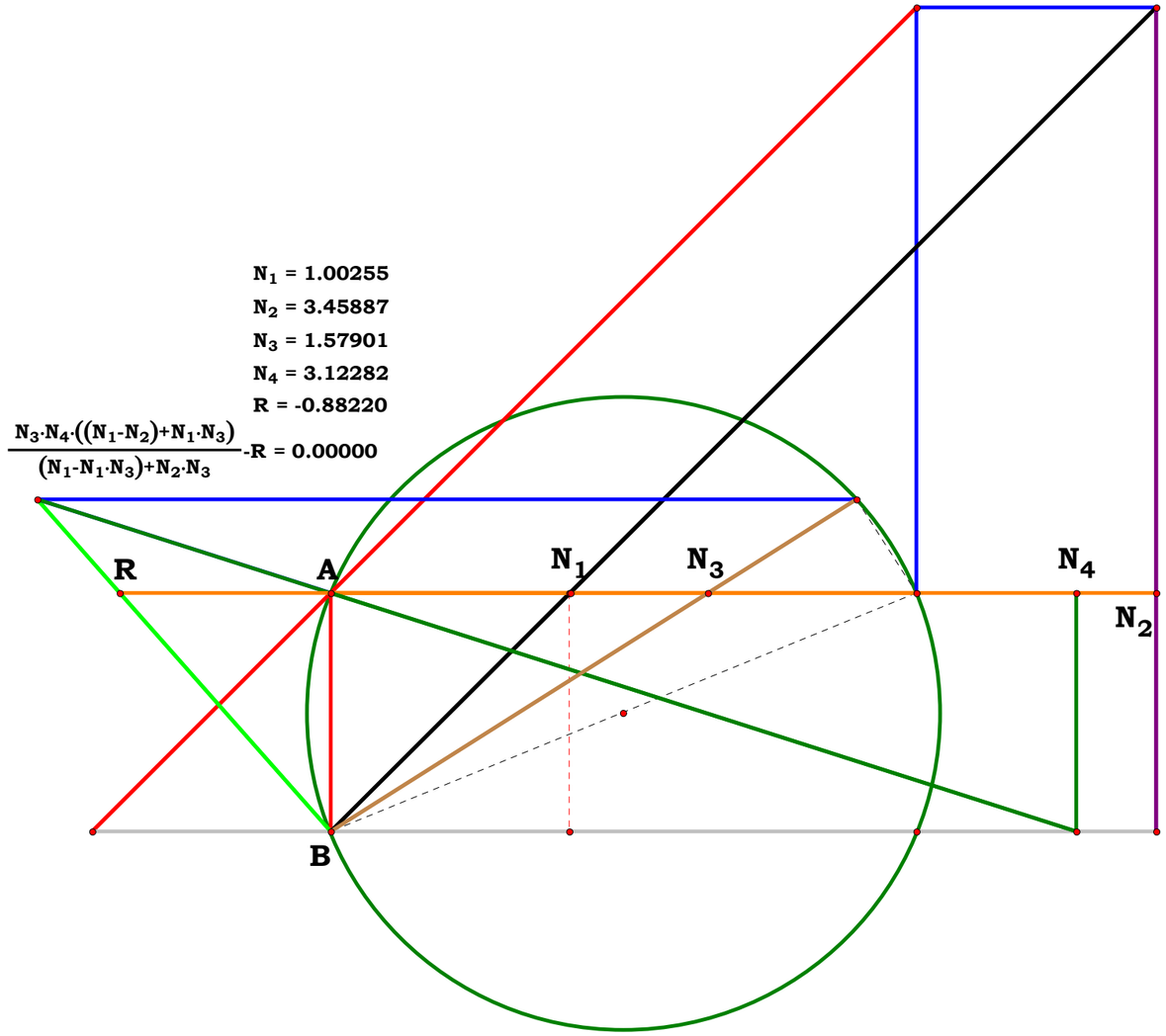
$$N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0 \quad N_4 - \frac{N_u}{D} = 0$$

$$R - \frac{N_u^2 \cdot [C \cdot (B - A) + B \cdot N_u]}{D \cdot [B \cdot C^2 + C \cdot N_u \cdot (A - B)]} = 0$$

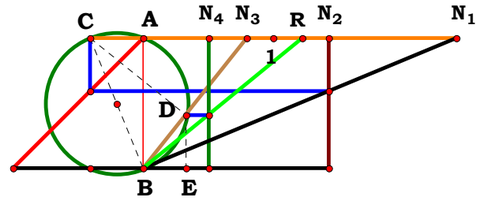
$$N_1 - \frac{W}{m} = 0 \quad N_2 - \frac{X}{n} = 0 \quad N_3 - \frac{Y}{o} = 0 \quad N_4 - \frac{Z}{p} = 0$$

$$R - \frac{Y \cdot Z \cdot (W \cdot Y \cdot n + W \cdot n \cdot o - X \cdot m \cdot o)}{o \cdot p \cdot (X \cdot Y \cdot m - W \cdot Y \cdot n + W \cdot n \cdot o)} = 0$$

$N_1 = 1.00255$
$N_2 = 3.45887$
$N_3 = 1.57901$
$N_4 = 3.12282$
$R = -0.88220$
$\frac{N_3 \cdot N_4 \cdot ((N_1 - N_2) + N_1 \cdot N_3)}{(N_1 - N_1 \cdot N_3) + N_2 \cdot N_3} - R = 0.00000$



4RST1AB1R9



$N_1 = 2.39948$
$N_2 = 1.42122$
$N_3 = 0.79637$
$N_4 = 0.50343$
$R = 1.21825$

Unit. $AB := 1$ Given. $N_1 := 2.39948$ $N_2 := 1.42122$ $N_3 := .79637$ $N_4 := .50343$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

$$AC := \frac{N_1 - N_2}{N_1} \qquad CN_3 := N_3 + AC$$

$$BN_3 := \sqrt{N_3^{\,2} + AB^2} \qquad DN_3 := \frac{N_3 \cdot CN_3}{BN_3}$$

$$DE := \frac{AB \cdot (BN_3 - DN_3)}{BN_3} \qquad R := \frac{N_4}{DE}$$

$R = 1.218244$

Definitions.

$$R - \frac{-N_4 \cdot (N_3^{\,2} + 1)}{AC \cdot N_3 - 1} = 0$$

$$R - \frac{N_1 \cdot N_4 \cdot (N_3^{\,2} + 1)}{N_1 - N_1 \cdot N_3 + N_2 \cdot N_3} = 0$$

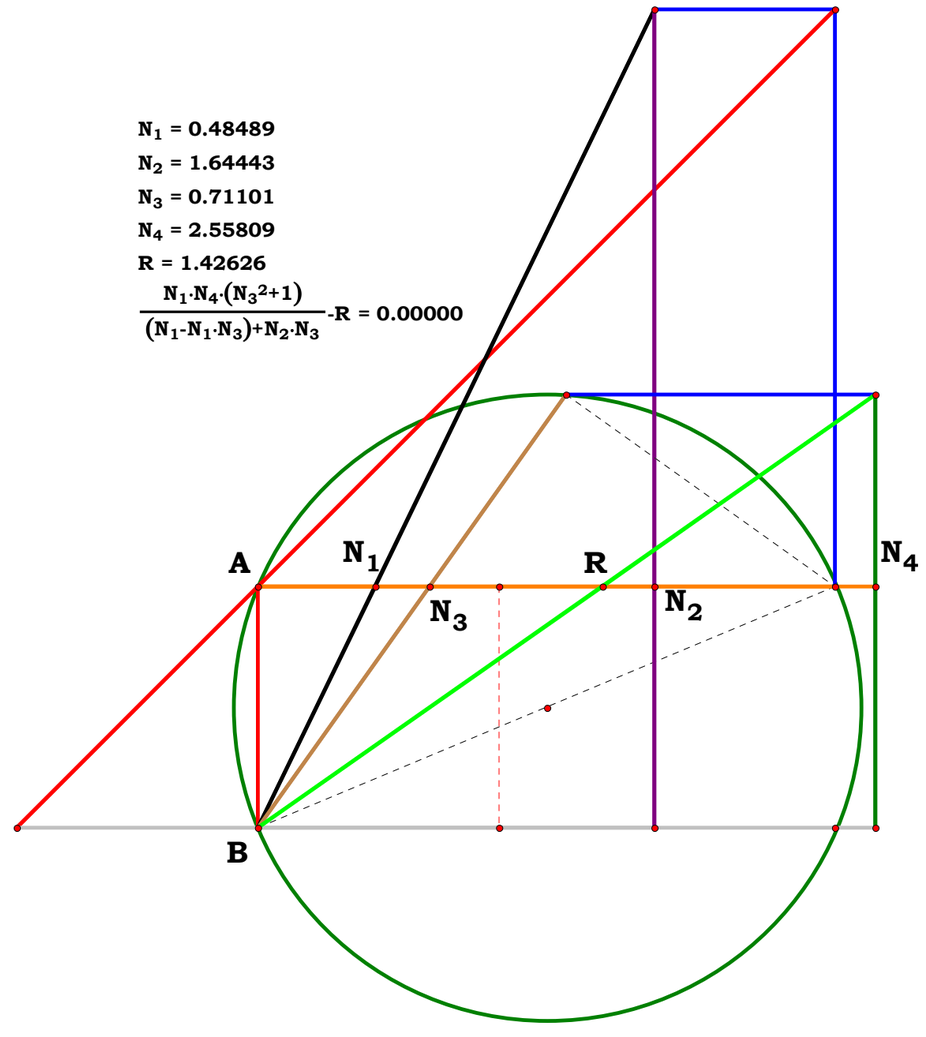
$$N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0 \quad N_4 - \frac{N_u}{D} = 0$$

$$R - \frac{B \cdot N_u \cdot (C^2 + N_u^{\,2})}{D \cdot [B \cdot C^2 + C \cdot N_u \cdot (A - B)]} = 0$$

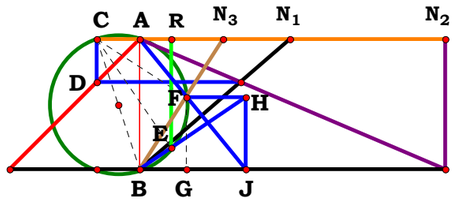
$$N_1 - \frac{W}{m} = 0 \quad N_2 - \frac{X}{n} = 0 \quad N_3 - \frac{Y}{o} = 0 \quad N_4 - \frac{Z}{p} = 0$$

$$R - \frac{W \cdot Z \cdot n \cdot (Y^2 + o^2)}{o \cdot p \cdot (X \cdot Y \cdot m - W \cdot Y \cdot n + W \cdot n \cdot o)} = 0$$

$N_1 = 0.48489$
$N_2 = 1.64443$
$N_3 = 0.71101$
$N_4 = 2.55809$
$R = 1.42626$
$\frac{N_1 \cdot N_4 \cdot (N_3^{\,2}+1)}{(N_1 - N_1 \cdot N_3) + N_2 \cdot N_3} - R = 0.00000$



4RST1AB3R0



$N_1 = 1.15002$
$N_2 = 2.34137$
$N_3 = 0.64140$
$R = 0.24332$

Unit. $AB := 1$ Given. $N_1 := 1.15002$ $N_2 := 2.34137$ $N_3 := .64140$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

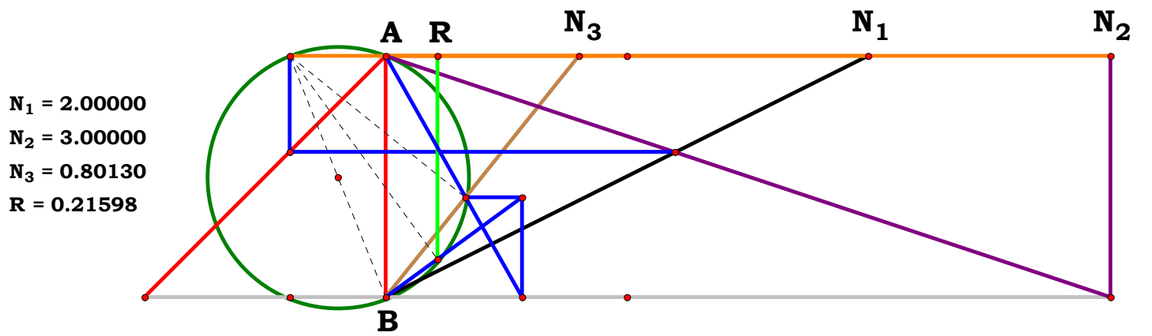
$AC := \frac{N_1}{N_1 + N_2}$ $BN_3 := \sqrt{N_3^2 + AB^2}$ $CN_3 := N_3 + AC$

$FN_3 := \frac{N_3 \cdot CN_3}{BN_3}$ $BF := BN_3 - FN_3$ $FG := \frac{AB \cdot BF}{BN_3}$

$BG := \frac{N_3 \cdot BF}{BN_3}$ $GJ := \frac{BG \cdot BF}{FN_3}$ $BJ := BG + GJ$

$HJ := FG$ $AK := \frac{BJ \cdot AB}{HJ}$ $BK := \sqrt{AK^2 + AB^2}$ $CK := AK + AC$

$EK := \frac{AK \cdot CK}{BK}$ $BE := BK - EK$ $R := \frac{AK \cdot BE}{BK}$ $R = 0.24332$



$N_1 = 2.00000$
$N_2 = 3.00000$
$N_3 = 0.80130$
$R = 0.21598$

$$\frac{(N_3 \cdot (N_1+N_2) \cdot (N_3^2+1) \cdot ((N_1+N_2)-N_1 \cdot N_3))}{(N_1^2 \cdot N_3 \cdot (N_3^3+3 \cdot N_3+2)+2 \cdot N_1^2+2 \cdot N_1 \cdot N_2 \cdot N_3 \cdot (N_3^3+3 \cdot N_3+1)+2 \cdot N_1 \cdot N_2+N_2^2 \cdot N_3^2 \cdot (N_3^2+3)+N_2^2)} - R = 0.00000$$

Definitions.

$$R - \frac{N_3 \cdot (N_3^2+1) \cdot (1 - AC \cdot N_3)}{AC^2 + 2 \cdot AC \cdot N_3 + N_3^4 + 3 \cdot N_3^2 + 1} = 0$$

$$R - \frac{N_3 \cdot (N_1+N_2) \cdot (N_3^2+1) \cdot (N_1+N_2-N_1 \cdot N_3)}{N_1^2 \cdot N_3 \cdot (N_3^3+3 \cdot N_3+2) + 2 \cdot N_1^2 + 2 \cdot N_1 \cdot N_2 \cdot N_3 \cdot (N_3^3+3 \cdot N_3+1) + 2 \cdot N_1 \cdot N_2 + N_2^2 \cdot N_3^2 \cdot (N_3^2+3) + N_2^2} = 0$$

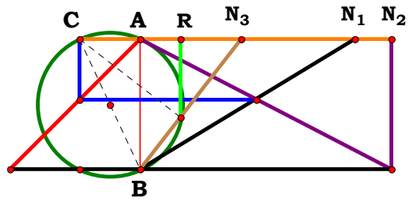
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$

$$R - \frac{N_u \cdot (C^2+N_u^2) \cdot (A+B) \cdot (A \cdot C + B \cdot C - B \cdot N_u)}{N_u^2 \cdot (3 \cdot C^2+N_u^2) \cdot (A+B)^2 + 2 \cdot N_u \cdot B \cdot C^3 \cdot (A+B) + C^4 \cdot (A^2+2 \cdot A \cdot B+2 \cdot B^2)} = 0$$

$N_1 - \frac{X}{o} = 0$ $N_2 - \frac{Y}{p} = 0$ $N_3 - \frac{Z}{q} = 0$

$$R - \frac{Z \cdot (X \cdot p + Y \cdot o) \cdot (Z^2+q^2) \cdot (X \cdot p \cdot q - X \cdot Z \cdot p + Y \cdot o \cdot q)}{Z^4 \cdot (X \cdot p + Y \cdot o)^2 + 3 \cdot Z^2 \cdot q^2 \cdot (X \cdot p + Y \cdot o)^2 + 2 \cdot Z \cdot X \cdot p \cdot q^3 \cdot (X \cdot p + Y \cdot o) + q^4 \cdot (2 \cdot X^2 \cdot p^2 + 2 \cdot X \cdot Y \cdot o \cdot p + Y^2 \cdot o^2)} = 0$$

4RST1AB3R1



$N_1 = 1.64399$
$N_2 = 1.92488$
$N_3 = 0.77700$
$R = 0.31108$

Unit. $AB := 1$ **Given.** $N_1 := 1.64399$ $N_2 := 1.92488$ $N_3 := .77700$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

$AC := \frac{N_1}{N_1 + N_2}$ $BN_3 := \sqrt{N_3^2 + AB^2}$

$CN_3 := N_3 + AC$ $DN_3 := \frac{N_3 \cdot CN_3}{BN_3}$

$BD := BN_3 - DN_3$ $R := \frac{N_3 \cdot BD}{BN_3}$

$R = 0.311084$

Definitions.

$$R - \frac{N_3 \cdot (1 - AC \cdot N_3)}{N_3^2 + 1} = 0$$

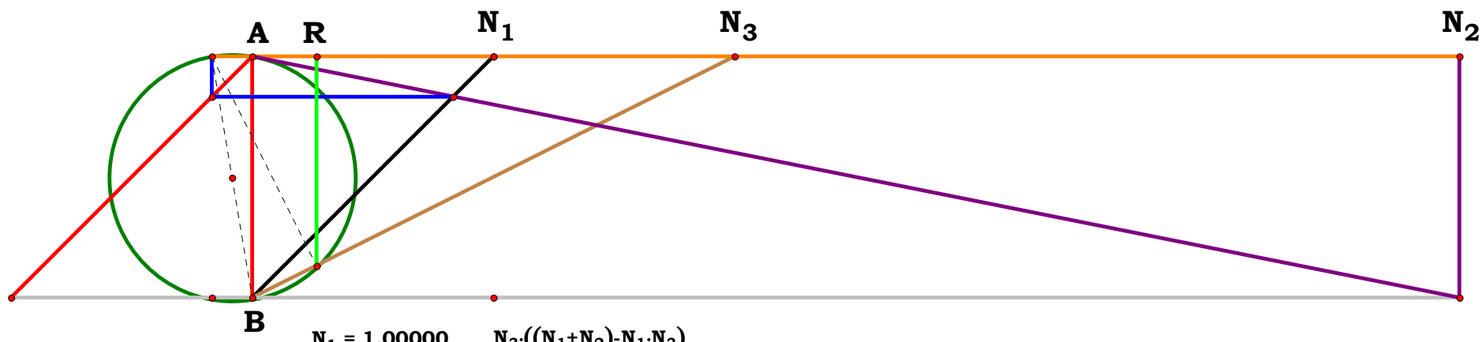
$$R - \frac{N_3 \cdot (N_1 + N_2 - N_1 \cdot N_3)}{(N_1 + N_2) \cdot (N_3^2 + 1)} = 0$$

$$N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0$$

$$R - \frac{N_u \cdot [C \cdot (A + B) - B \cdot N_u]}{(C^2 + N_u^2) \cdot (A + B)} = 0$$

$$N_1 - \frac{X}{o} = 0 \quad N_2 - \frac{Y}{p} = 0 \quad N_3 - \frac{Z}{q} = 0$$

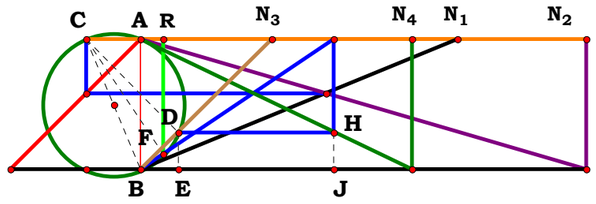
$$R - \frac{Z \cdot (X \cdot p \cdot q - X \cdot Z \cdot p + Y \cdot o \cdot q)}{(X \cdot p + Y \cdot o) \cdot (Z^2 + q^2)} = 0$$



$N_1 = 1.00000$
$N_2 = 5.00000$
$N_3 = 2.00000$
$R = 0.26667$

$\frac{N_3 \cdot ((N_1 + N_2) - N_1 \cdot N_3)}{(N_1 + N_2) \cdot (N_3^2 + 1)} - R = 0.00000$

4RST1AB3R2



$N_1 = 2.42854$
$N_2 = 3.41649$
$N_3 = 1.00946$
$N_4 = 2.08221$
$R = 0.17781$

Unit. $AB := 1$ Given. $N_1 := 2.42854$ $N_2 := 3.41649$ $N_3 := 1.00946$ $N_4 := 2.08221$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

$AC := \frac{N_1}{N_1 + N_2}$ $BN_3 := \sqrt{N_3^2 + AB^2}$

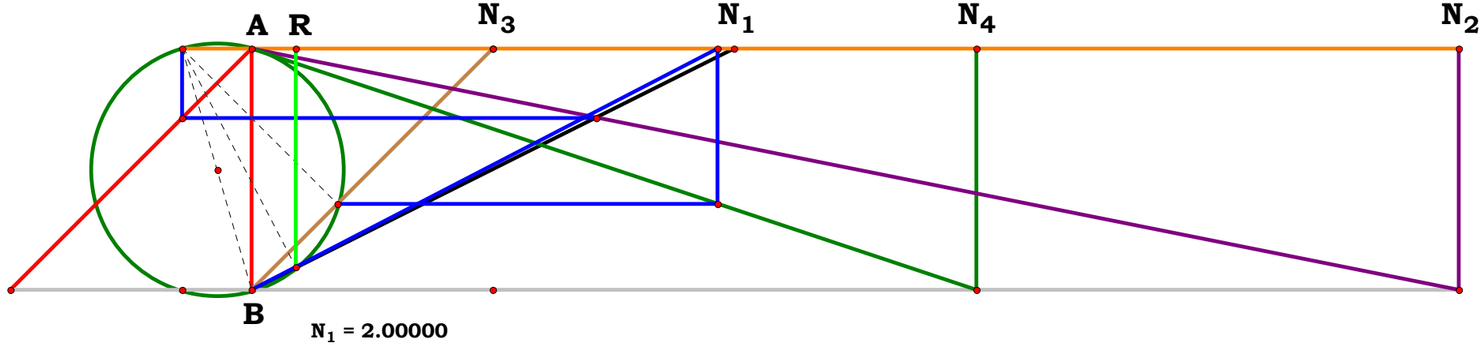
$CN_3 := N_3 + AC$ $EN_3 := \frac{N_3 \cdot CN_3}{BN_3}$

$EF := AB \cdot \left(\frac{BN_3 - EN_3}{BN_3} \right)$ $AG := N_4 \cdot (AB - EF)$

$BG := \sqrt{AG^2 + AB^2}$ $CG := AG + AC$

$FG := \frac{AG \cdot CG}{BG}$ $R := AG \cdot \left(\frac{BG - FG}{BG} \right)$

$R = 0.177813$



$N_1 = 2.00000$
$N_2 = 5.00000$
$N_3 = 1.00000$
$N_4 = 3.00000$
$R = 0.18347$
$\frac{(N_3 \cdot N_4 \cdot (N_1+N_2)^2 \cdot (N_3^2+1) \cdot (N_1+N_1 \cdot N_3+N_2 \cdot N_3) - N_1 \cdot N_3^2 \cdot N_4^2 \cdot (N_1+N_1 \cdot N_3+N_2 \cdot N_3)^2)}{((N_1+N_2) \cdot (N_3^2 \cdot N_4^2 \cdot (N_1+N_1 \cdot N_3+N_2 \cdot N_3)^2 + (N_3^2+1)^2 \cdot (N_1+N_2)^2))} - R = 0.00000$

Definitions.

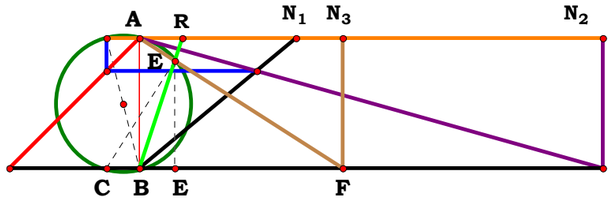
$$R - \frac{N_3 \cdot N_4 \cdot (AC + N_3) \cdot (N_3^2 - AC \cdot N_3^2 \cdot N_4 - AC^2 \cdot N_3 \cdot N_4 + 1)}{AC^2 \cdot N_3^2 \cdot N_4^2 + 2 \cdot AC \cdot N_3^3 \cdot N_4^2 + N_3^4 \cdot N_4^2 + N_3^4 + 2 \cdot N_3^2 + 1} = 0$$

$$R - \frac{N_3 \cdot N_4 \cdot (N_1 + N_2)^2 \cdot (N_3^2 + 1) \cdot (N_1 + N_1 \cdot N_3 + N_2 \cdot N_3) - N_1 \cdot N_3^2 \cdot N_4^2 \cdot (N_1 + N_1 \cdot N_3 + N_2 \cdot N_3)^2}{(N_1 + N_2) \cdot \left[N_3^2 \cdot N_4^2 \cdot (N_1 + N_1 \cdot N_3 + N_2 \cdot N_3)^2 + (N_3^2 + 1)^2 \cdot (N_1 + N_2)^2 \right]} = 0 \qquad N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0 \quad N_4 - \frac{N_u}{D} = 0$$

$$R - \frac{N_u^2 \cdot [B \cdot C + N_u \cdot (A + B)] \cdot \left[D \cdot (C^2 + N_u^2) \cdot (A + B)^2 - [B \cdot N_u^2 \cdot (B \cdot C + A \cdot N_u + B \cdot N_u)] \right]}{(A + B) \cdot \left[D^2 \cdot (C^2 + N_u^2)^2 \cdot (A + B)^2 + N_u^4 \cdot (B \cdot C + A \cdot N_u + B \cdot N_u)^2 \right]} = 0 \qquad N_1 - \frac{W}{m} = 0 \quad N_2 - \frac{X}{n} = 0 \quad N_3 - \frac{Y}{o} = 0 \quad N_4 - \frac{Z}{p} = 0$$

$$R - \frac{N_3 \cdot N_4 \cdot (N_1 + N_2)^2 \cdot (N_3^2 + 1) \cdot (N_1 + N_1 \cdot N_3 + N_2 \cdot N_3) - N_1 \cdot N_3^2 \cdot N_4^2 \cdot (N_1 + N_1 \cdot N_3 + N_2 \cdot N_3)^2}{(N_1 + N_2) \cdot \left[N_3^2 \cdot N_4^2 \cdot (N_1 + N_1 \cdot N_3 + N_2 \cdot N_3)^2 + (N_3^2 + 1)^2 \cdot (N_1 + N_2)^2 \right]} = 0$$

4RST1AB3R3



$N_1 = 1.19844$
$N_2 = 3.55209$
$N_3 = 1.56155$
$R = 0.33413$

Unit. $AB := 1$ Given. $N_1 := 1.19844$ $N_2 := 3.55209$ $N_3 := 1.56155$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

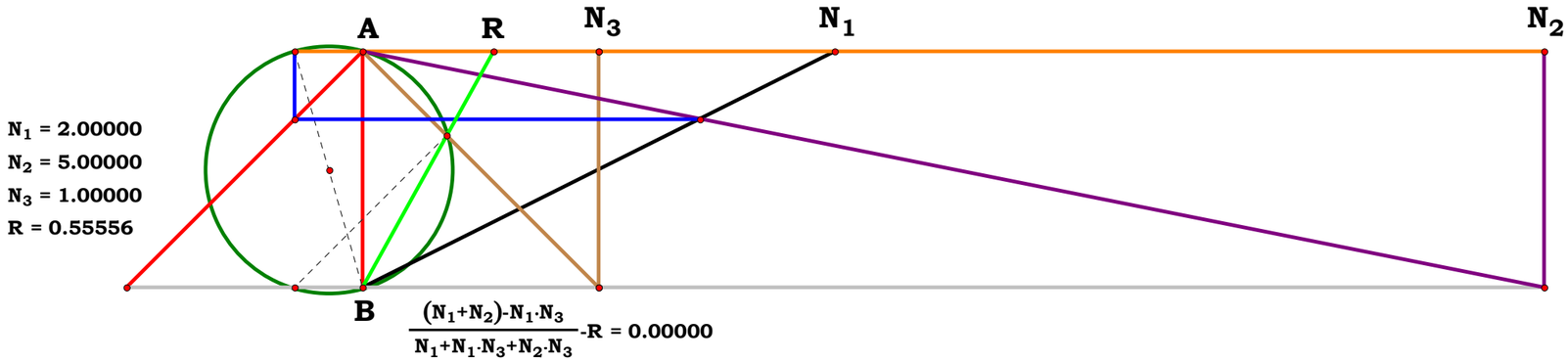
Descriptions.

$$BC := \left(\frac{N_1}{N_1 + N_2}\right) \quad AF := \sqrt{N_3^2 + AB^2}$$

$$CF := N_3 + BC \quad DF := \frac{N_3 \cdot CF}{AF}$$

$$BE := \frac{N_3 \cdot (AF - DF)}{AF} \quad R := \frac{AF \cdot BE}{DF}$$

$R = 0.334134$



$N_1 = 2.00000$
$N_2 = 5.00000$
$N_3 = 1.00000$
$R = 0.55556$

$$\frac{(N_1+N_2)-N_1 \cdot N_3}{N_1+N_1 \cdot N_3+N_2 \cdot N_3} - R = 0.00000$$

Definitions.

$$R - \left(\frac{BC^2 + 1}{BC + N_3} - BC\right) = 0$$

$$R - \frac{N_1 + N_2 - N_1 \cdot N_3}{N_1 + N_1 \cdot N_3 + N_2 \cdot N_3} = 0$$

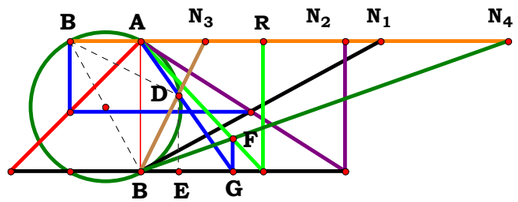
$$N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0$$

$$R - \frac{C \cdot (A + B) - B \cdot N_u}{B \cdot C + N_u \cdot (A + B)} = 0$$

$$N_1 - \frac{X}{o} = 0 \quad N_2 - \frac{Y}{p} = 0 \quad N_3 - \frac{Z}{q} = 0$$

$$R - \frac{X \cdot p \cdot q - X \cdot Z \cdot p + Y \cdot o \cdot q}{X \cdot Z \cdot p + Y \cdot Z \cdot o + X \cdot p \cdot q} = 0$$

4RST1AB3R4



$N_1 = 1.83771$
$N_2 = 1.56650$
$N_3 = 0.49611$
$N_4 = 2.81833$
$R = 0.94335$

Unit. $AB := 1$ Given. $N_1 := 1.83771$ $N_2 := 1.56650$ $N_3 := .49611$ $N_4 := 2.81833$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

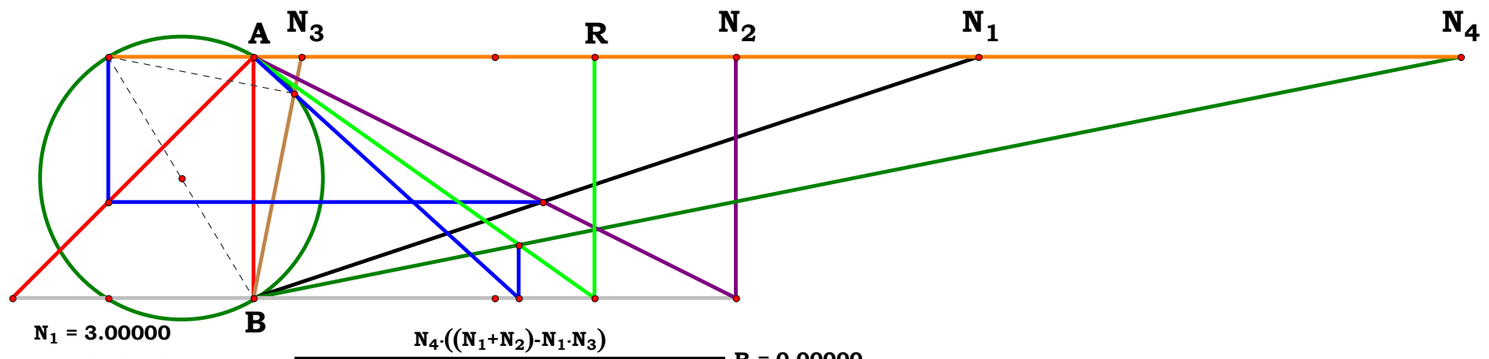
$AC := \frac{N_1}{N_1 + N_2}$ $CN_3 := N_3 + AC$

$BN_3 := \sqrt{N_3^2 + AB^2}$ $DN_3 := \frac{N_3 \cdot CN_3}{BN_3}$

$BD := BN_3 - DN_3$ $BE := \frac{N_3 \cdot BD}{BN_3}$

$BG := \frac{BE \cdot BN_3}{DN_3}$ $FG := \frac{AB \cdot BG}{N_4}$

$R := \frac{BG \cdot AB}{AB - FG}$ $R = 0.94335$



$N_1 = 3.00000$
$N_2 = 2.00000$
$N_3 = 0.20000$
$N_4 = 5.00000$
$R = 1.41026$

$$\frac{N_4 \cdot ((N_1+N_2)-N_1 \cdot N_3)}{(N_1 \cdot N_3 - N_2 - N_1)+N_1 \cdot N_4+N_1 \cdot N_3 \cdot N_4+N_2 \cdot N_3 \cdot N_4} - R = 0.00000$$

Definitions.

$$R - \frac{N_4 - AC \cdot N_3 \cdot N_4}{AC \cdot N_3 + AC \cdot N_4 + N_3 \cdot N_4 - 1} = 0$$

$$R - \frac{N_4 \cdot (N_1 + N_2 - N_1 \cdot N_3)}{N_1 \cdot N_3 - N_2 - N_1 + N_1 \cdot N_4 + N_1 \cdot N_3 \cdot N_4 + N_2 \cdot N_3 \cdot N_4} = 0$$

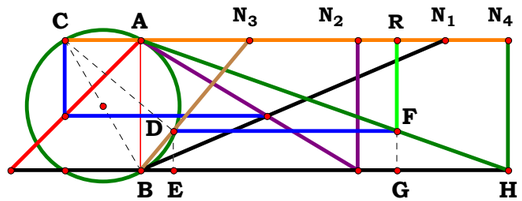
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{N_u \cdot (A \cdot C + B \cdot C - B \cdot N_u)}{(A + B) \cdot N_u^2 + N_u \cdot B \cdot (C + D) - [C \cdot D \cdot (A + B)]} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{A \cdot X \cdot Z \cdot o - N_u \cdot Y \cdot Z \cdot n + N_u \cdot Z \cdot n \cdot o}{A \cdot X \cdot (Y \cdot Z - o \cdot p) + N_u \cdot n \cdot (Y \cdot Z + Y \cdot p + Z \cdot o - o \cdot p)} = 0$$

4RST1AB3R5



$N_1 = 2.33168$
$N_2 = 1.66336$
$N_3 = 0.83511$
$N_4 = 2.81833$
$R = 1.96724$

Unit. $AB := 1$ Given. $N_1 := 2.33168$ $N_2 := 1.66336$ $N_3 := .83511$ $N_4 := 2.81833$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

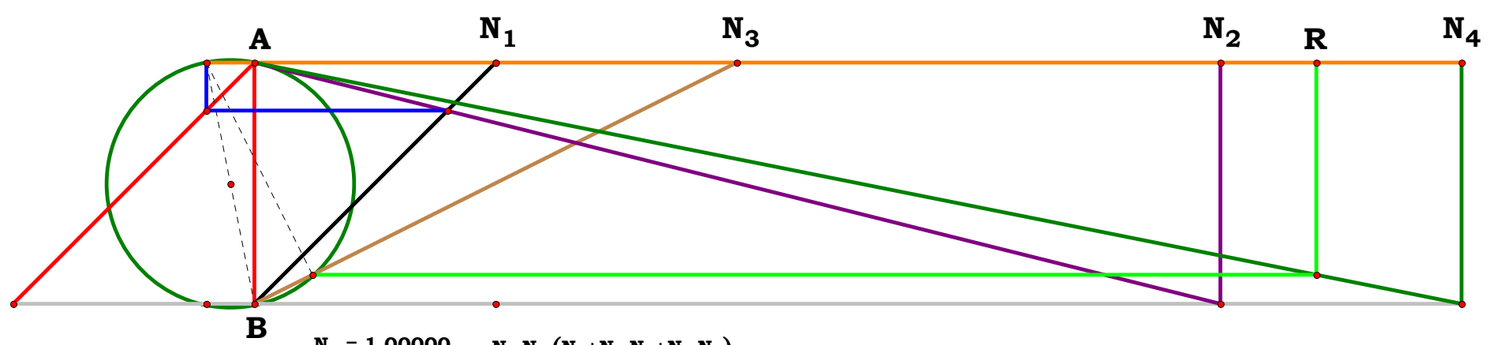
Descriptions.

$$AC := \frac{N_1}{N_1 + N_2} \qquad CN_3 := AC + N_3$$

$$BN_3 := \sqrt{N_3^2 + AB^2} \qquad DN_3 := \frac{CN_3 \cdot N_3}{BN_3}$$

$$BD := BN_3 - DN_3 \qquad DE := \frac{AB \cdot BD}{BN_3}$$

$$R := N_4 \cdot (AB - DE) \qquad R = 1.967234$$



$N_1 = 1.00000$
$N_2 = 4.00000$
$N_3 = 2.00000$
$N_4 = 5.00000$
$R = 4.40000$

$$\frac{N_3 \cdot N_4 \cdot (N_1 + N_1 \cdot N_3 + N_2 \cdot N_3)}{(N_1 + N_2) \cdot (N_3^2 + 1)} - R = 0.00000$$

Definitions.

$$R - \frac{N_3 \cdot N_4 \cdot (AC + N_3)}{N_3^2 + 1} = 0$$

$$R - \frac{N_3 \cdot N_4 \cdot (N_1 + N_1 \cdot N_3 + N_2 \cdot N_3)}{(N_1 + N_2) \cdot (N_3^2 + 1)} = 0$$

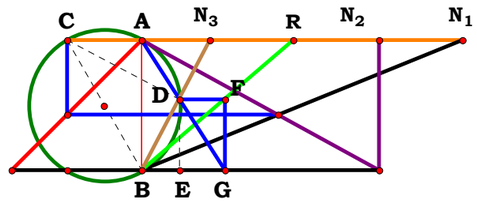
$$N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0 \quad N_4 - \frac{N_u}{D} = 0$$

$$R - \frac{N_u^2 \cdot [B \cdot C + N_u \cdot (A + B)]}{D \cdot (C^2 + N_u^2) \cdot (A + B)} = 0$$

$$N_1 - \frac{W}{m} = 0 \quad N_2 - \frac{X}{n} = 0 \quad N_3 - \frac{Y}{o} = 0 \quad N_4 - \frac{Z}{p} = 0$$

$$R - \frac{Y \cdot Z \cdot (W \cdot Y \cdot n + X \cdot Y \cdot m + W \cdot n \cdot o)}{p \cdot (W \cdot n + X \cdot m) \cdot (Y^2 + o^2)} = 0$$

4RST1AB3R6



$N_1 = 2.45760$
$N_2 = 1.81833$
$N_3 = 0.52517$
$R = 1.15990$

Unit. $AB := 1$ Given. $N_1 := 2.45760$ $N_2 := 1.81833$ $N_3 := .52517$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

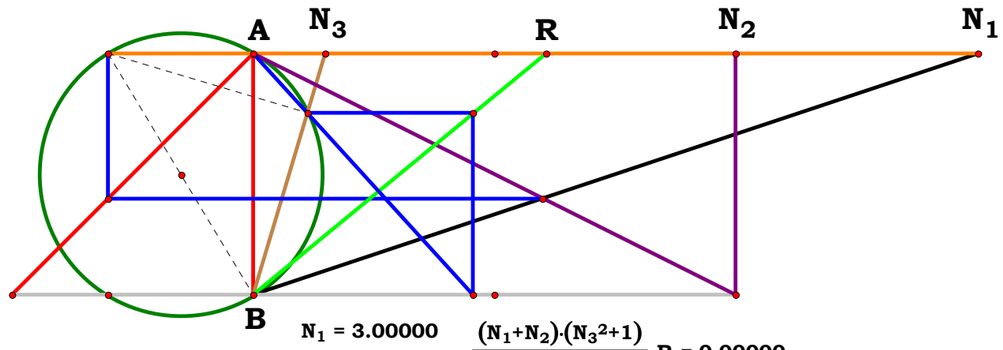
$AC := \frac{N_1}{N_1 + N_2}$ $CN_3 := AC + N_3$

$BN_3 := \sqrt{N_3^2 + AB^2}$ $DN_3 := \frac{CN_3 \cdot N_3}{BN_3}$

$BD := BN_3 - DN_3$ $DE := \frac{AB \cdot BD}{BN_3}$

$BE := N_3 \cdot DE$ $BG := \frac{BE \cdot AB}{(AB - DE)}$

$R := \frac{BG \cdot AB}{DE}$ $R = 1.159903$



$N_1 = 3.00000$
$N_2 = 2.00000$
$N_3 = 0.30000$
$R = 1.21111$

$\frac{(N_1+N_2)\cdot(N_3^2+1)}{N_1+N_1\cdot N_3+N_2\cdot N_3} - R = 0.00000$

Definitions.

$R - \frac{N_3^2 + 1}{AC + N_3} = 0$

$R - \frac{(N_1 + N_2) \cdot (N_3^2 + 1)}{N_1 + N_1 \cdot N_3 + N_2 \cdot N_3} = 0$

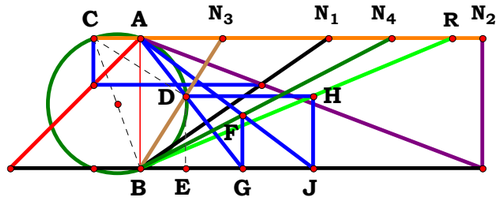
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$

$R - \frac{(C^2 + N_u^2) \cdot (A + B)}{C \cdot [B \cdot C + N_u \cdot (A + B)]} = 0$

$N_1 - \frac{X}{o} = 0$ $N_2 - \frac{Y}{p} = 0$ $N_3 - \frac{Z}{q} = 0$

$R - \frac{(X \cdot p + Y \cdot o) \cdot (Z^2 + q^2)}{X \cdot p \cdot q^2 + X \cdot Z \cdot p \cdot q + Y \cdot Z \cdot o \cdot q} = 0$

4RST1AB3R7



$N_1 = 1.44059$
$N_2 = 2.62225$
$N_3 = 0.63171$
$N_4 = 1.92724$
$R = 2.39715$

Unit. $AB := 1$ Given. $N_1 := 1.44059$ $N_2 := 2.62225$ $N_3 := .63171$ $N_4 := 1.92724$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

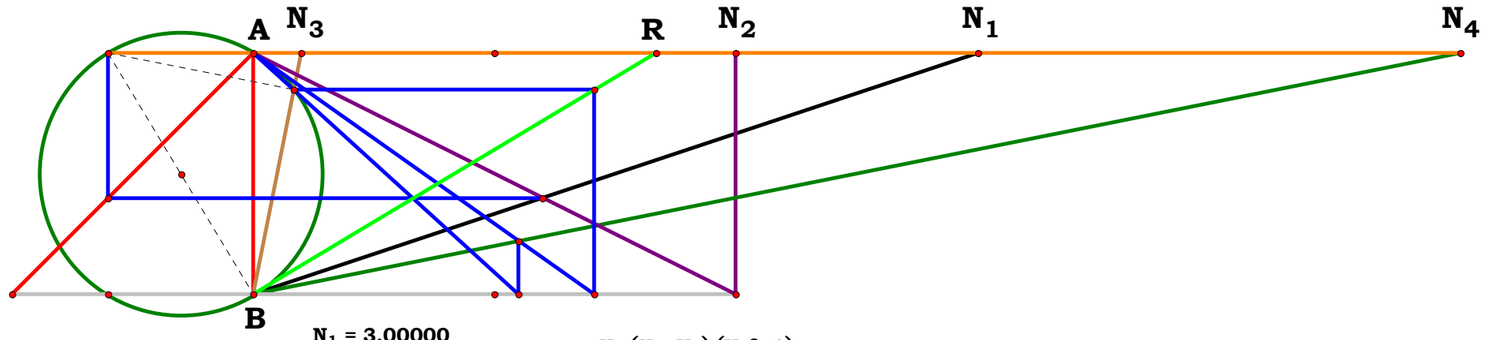
Descriptions.

$AC := \frac{N_1}{N_1 + N_2}$ $BN_3 := \sqrt{N_3^2 + AB^2}$ $CN_3 := N_3 + AC$

$DN_3 := \frac{N_3 \cdot CN_3}{BN_3}$ $BD := BN_3 - DN_3$ $BE := \frac{N_3 \cdot BD}{BN_3}$

$DE := \frac{AB \cdot BD}{BN_3}$ $BG := \frac{BE \cdot AB}{AB - DE}$ $FG := \frac{AB \cdot BG}{N_4}$

$BJ := \frac{BG}{AB - FG}$ $R := \frac{BJ \cdot AB}{DE}$ $R = 2.397151$



$N_1 = 3.00000$
$N_2 = 2.00000$
$N_3 = 0.20000$
$N_4 = 5.00000$
$R = 1.66667$

$$\frac{N_4 \cdot (N_1+N_2) \cdot (N_3^2+1)}{(N_1 \cdot (N_3+N_4) - N_1 - N_2) + N_3 \cdot N_4 \cdot (N_1+N_2)} - R = 0.00000$$

Definitions.

$$R - \frac{N_4 \cdot \left(N_3^2 + 1\right)}{AC \cdot N_3 + AC \cdot N_4 + N_3 \cdot N_4 - 1} = 0$$

$$R - \frac{N_4 \cdot (N_1 + N_2) \cdot \left(N_3^2 + 1\right)}{N_1 \cdot (N_3 + N_4) - N_1 - N_2 + N_3 \cdot N_4 \cdot (N_1 + N_2)} = 0$$

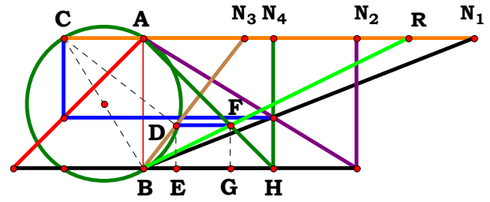
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{N_u \cdot \left(C^2 + N_u^2\right) \cdot (A + B)}{C \cdot \left(N_u^2 - C \cdot D\right) \cdot (A + B) + N_u \cdot B \cdot C \cdot (C + D)} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{Z \cdot (W \cdot n + X \cdot m) \cdot \left(Y^2 + o^2\right)}{o \cdot [W \cdot n \cdot (Y \cdot Z + Y \cdot p + Z \cdot o - o \cdot p) + X \cdot m \cdot (Y \cdot Z - o \cdot p)]} = 0$$

4RST1AB3R8



$N_1 = 2.53508$
$N_2 = 1.63430$
$N_3 = 0.77700$
$N_4 = 0.99741$
$R = 2.03456$

Unit. $AB := 1$ Given. $N_1 := 2.53508$ $N_2 := 1.63430$ $N_3 := .77700$ $N_4 := .99741$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

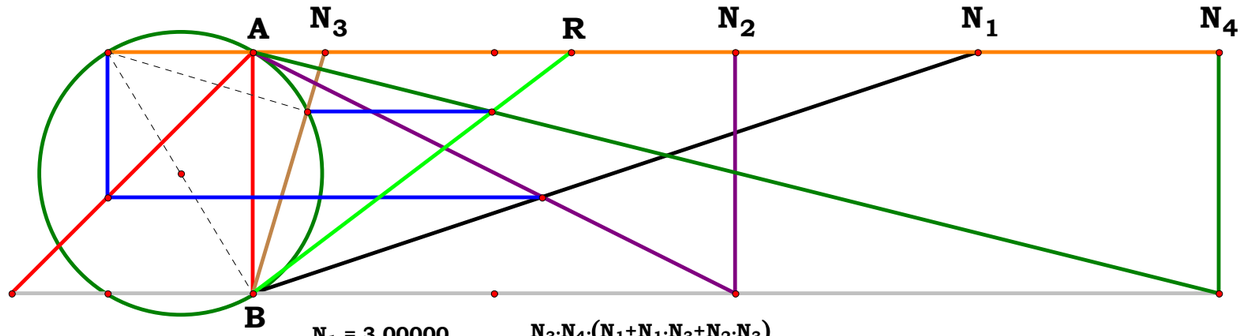
Descriptions.

$$AC := \frac{N_1}{N_1 + N_2} \qquad CN_3 := N_3 + AC$$

$$BN_3 := \sqrt{N_3^{\,2} + AB^2} \qquad DN_3 := \frac{N_3 \cdot CN_3}{BN_3}$$

$$DE := \frac{AB \cdot (BN_3 - DN_3)}{BN_3} \qquad BG := N_4 \cdot (AB - DE)$$

$$R := \frac{BG \cdot AB}{DE} \qquad R = 2.034581$$



$N_1 = 3.00000$
$N_2 = 2.00000$
$N_3 = 0.30000$
$N_4 = 4.00000$
$R = 1.31707$

$\frac{N_3 \cdot N_4 \cdot (N_1 + N_1 \cdot N_3 + N_2 \cdot N_3)}{(N_1 + N_2) - N_1 \cdot N_3} - R = 0.00000$

Definitions.

$$R - \frac{N_3 \cdot N_4 \cdot (AC + N_3)}{(1 - AC \cdot N_3)} = 0$$

$$R - \frac{N_3 \cdot N_4 \cdot (N_1 + N_1 \cdot N_3 + N_2 \cdot N_3)}{N_1 + N_2 - N_1 \cdot N_3} = 0$$

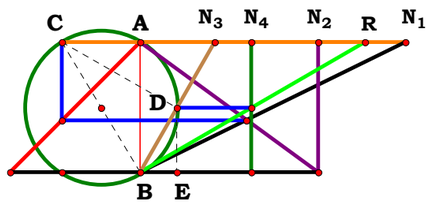
$$N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0 \quad N_4 - \frac{N_u}{D} = 0$$

$$R - \frac{N_u^{\,2} \cdot [B \cdot C + N_u \cdot (A + B)]}{C \cdot D \cdot [C \cdot (A + B) - B \cdot N_u]} = 0$$

$$N_1 - \frac{W}{m} = 0 \quad N_2 - \frac{X}{n} = 0 \quad N_3 - \frac{Y}{o} = 0 \quad N_4 - \frac{Z}{p} = 0$$

$$R - \frac{Y \cdot Z \cdot (W \cdot Y \cdot n + X \cdot Y \cdot m + W \cdot n \cdot o)}{o \cdot p \cdot (W \cdot n \cdot o - W \cdot Y \cdot n + X \cdot m \cdot o)} = 0$$

4RST1AB3R9



$N_1 = 2.03142$
$N_2 = 1.36310$
$N_3 = 0.57360$
$N_4 = 0.85212$
$R = 1.72440$

Unit. $AB := 1$ Given. $N_1 := 2.03142$ $N_2 := 1.36310$ $N_3 := .57360$ $N_4 := .85212$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

$$AC := \frac{N_1}{N_1 + N_2} \qquad CN_3 := N_3 + AC$$

$$BN_3 := \sqrt{N_3^2 + AB^2} \qquad DN_3 := \frac{N_3 \cdot CN_3}{BN_3}$$

$$DE := \frac{AB \cdot (BN_3 - DN_3)}{BN_3} \qquad R := \frac{N_4}{DE}$$

$R = 1.724414$

Definitions.

$$R - \frac{-N_4 \cdot (N_3^2 + 1)}{AC \cdot N_3 - 1} = 0$$

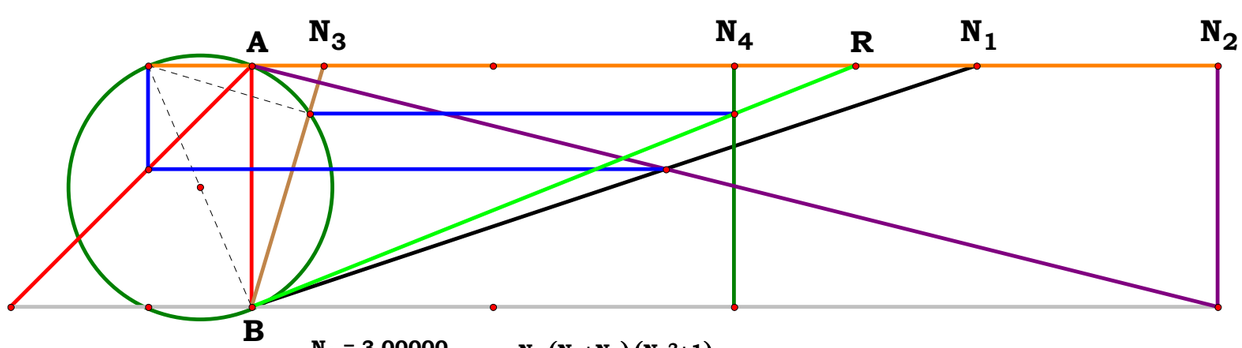
$$R - \frac{N_4 \cdot (N_1 + N_2) \cdot (N_3^2 + 1)}{N_1 + N_2 - N_1 \cdot N_3} = 0$$

$$N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0 \quad N_4 - \frac{N_u}{D} = 0$$

$$R - \frac{N_u \cdot (C^2 + N_u^2) \cdot (A + B)}{C \cdot D \cdot [C \cdot (A + B) - B \cdot N_u]} = 0$$

$$N_1 - \frac{W}{m} = 0 \quad N_2 - \frac{X}{n} = 0 \quad N_3 - \frac{Y}{o} = 0 \quad N_4 - \frac{Z}{p} = 0$$

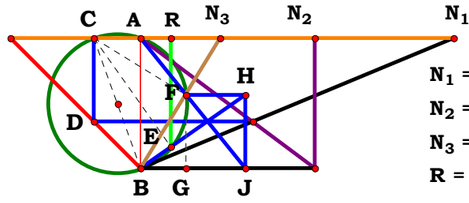
$$R - \frac{Z \cdot (W \cdot n + X \cdot m) \cdot (Y^2 + o^2)}{o \cdot p \cdot (W \cdot n \cdot o - W \cdot Y \cdot n + X \cdot m \cdot o)} = 0$$



$N_1 = 3.00000$
$N_2 = 4.00000$
$N_3 = 0.30000$
$N_4 = 2.00000$
$R = 2.50164$

$$\frac{N_4 \cdot (N_1 + N_2) \cdot (N_3^2 + 1)}{(N_1 + N_2) - N_1 \cdot N_3} - R = 0.00000$$

4RST1AB4R0



$N_1 = 2.39948$
$N_2 = 1.33405$
$N_3 = 0.61234$
$R = 0.23235$

Unit. $AB := 1$ **Given.** $N_1 := 2.39948$ $N_2 := 1.33405$ $N_3 := .61234$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

Descriptions.

$AC := \frac{N_2}{N_1 + N_2}$ $BN_3 := \sqrt{N_3^2 + AB^2}$ $CN_3 := N_3 + AC$

$FN_3 := \frac{N_3 \cdot CN_3}{BN_3}$ $BF := BN_3 - FN_3$ $FG := \frac{AB \cdot BF}{BN_3}$

$BG := \frac{N_3 \cdot BF}{BN_3}$ $GJ := \frac{BG \cdot BF}{FN_3}$

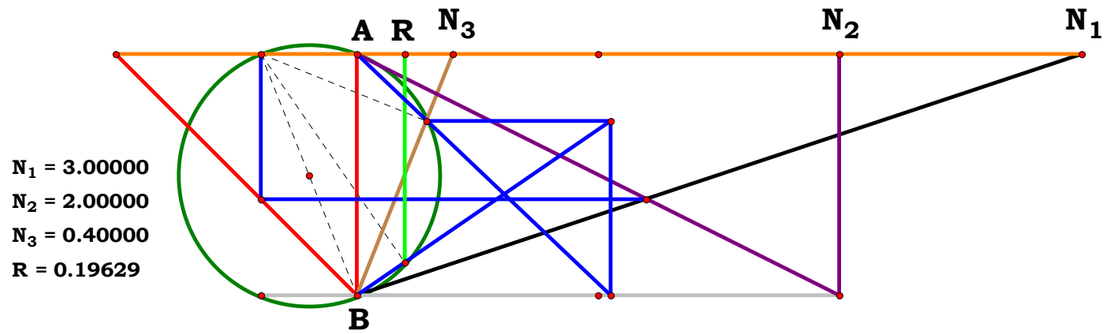
$BJ := BG + GJ$ $HJ := FG$

$AK := \frac{BJ \cdot AB}{HJ}$ $BK := \sqrt{AK^2 + AB^2}$

$CK := AK + AC$ $EK := \frac{AK \cdot CK}{BK}$

$BE := BK - EK$ $R := \frac{AK \cdot BE}{BK}$

$R = 0.232351$



$N_1 = 3.00000$
$N_2 = 2.00000$
$N_3 = 0.40000$
$R = 0.19629$

$$\frac{(N_3 \cdot (N_1+N_2) \cdot (N_3^2+1) \cdot ((N_1+N_2) - N_2 \cdot N_3))}{(N_1^2 \cdot N_3^2 \cdot (N_3^2+3) + N_1^2 + 2 \cdot N_1 \cdot N_2 \cdot N_3 \cdot (N_3^3+3 \cdot N_3+1) + 2 \cdot N_1 \cdot N_2 + N_2^2 \cdot N_3 \cdot (N_3^3+3 \cdot N_3+2) + 2 \cdot N_2^2)} - R = 0.00000$$

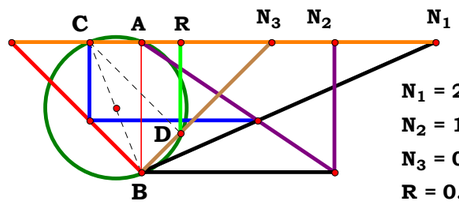
Definitions.

$$R - \frac{N_3 \cdot \left(N_3^2 + 1\right) \cdot \left(1 - AC \cdot N_3\right)}{AC^2 + 2 \cdot AC \cdot N_3 + N_3^4 + 3 \cdot N_3^2 + 1} = 0$$

$$R - \frac{N_3 \cdot \left(N_1 + N_2\right) \cdot \left(N_3^2 + 1\right) \cdot \left(N_1 + N_2 - N_2 \cdot N_3\right)}{N_1^2 \cdot N_3^2 \cdot \left(N_3^2 + 3\right) + N_1^2 + 2 \cdot N_1 \cdot N_2 \cdot N_3 \cdot \left(N_3^3 + 3 \cdot N_3 + 1\right) + 2 \cdot N_1 \cdot N_2 + N_2^2 \cdot N_3 \cdot \left(N_3^3 + 3 \cdot N_3 + 2\right) + 2 \cdot N_2^2} = 0$$

$$R - \frac{N_u \cdot \left(C^2 + N_u^2\right) \cdot (A + B) \cdot \left[C \cdot (A + B) - A \cdot N_u\right]}{N_u^2 \cdot \left(3 \cdot C^2 + N_u^2\right) \cdot (A + B)^2 + 2 \cdot N_u \cdot A \cdot C^3 \cdot (A + B) + C^4 \cdot \left(2 \cdot A^2 + 2 \cdot A \cdot B + B^2\right)} = 0$$

4RST1AB4R1



$N_1 = 2.25419$
$N_2 = 1.47933$
$N_3 = 0.99977$
$R = 0.30193$

Unit. $AB := 1$ Given. $N_1 := 2.25419$ $N_2 := 1.47933$ $N_3 := .99977$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

$AC := \frac{N_2}{N_1 + N_2}$ $BN_3 := \sqrt{N_3^2 + AB^2}$

$CN_3 := N_3 + AC$ $DN_3 := \frac{N_3 \cdot CN_3}{BN_3}$

$BD := BN_3 - DN_3$ $R := \frac{N_3 \cdot BD}{BN_3}$

$R = 0.301931$

Definitions.

$$R - \frac{N_3 \cdot (1 - AC \cdot N_3)}{N_3^2 + 1} = 0$$

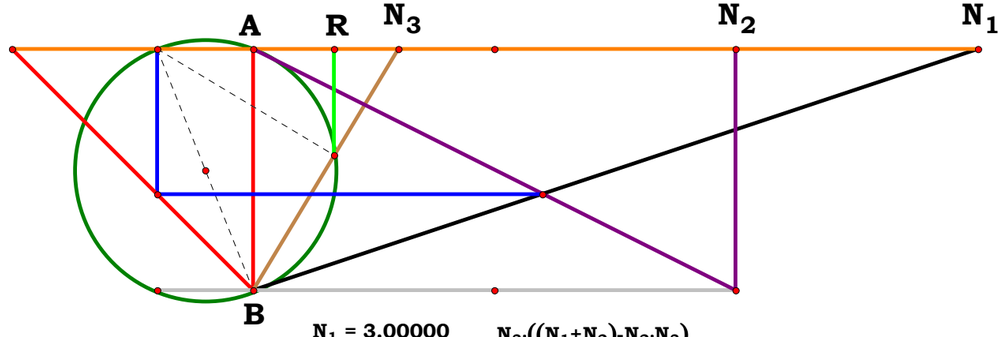
$$R - \frac{N_3 \cdot (N_1 + N_2 - N_2 \cdot N_3)}{(N_1 + N_2) \cdot (N_3^2 + 1)} = 0$$

$$N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0$$

$$R - \frac{N_u \cdot [C \cdot (A + B) - A \cdot N_u]}{(C^2 + N_u^2) \cdot (A + B)} = 0$$

$$N_1 - \frac{X}{o} = 0 \quad N_2 - \frac{Y}{p} = 0 \quad N_3 - \frac{Z}{q} = 0$$

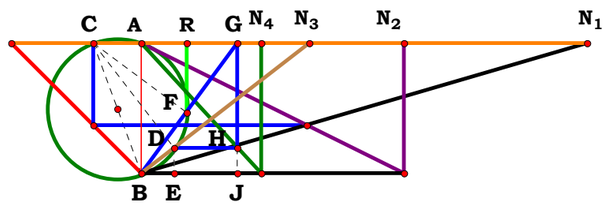
$$R - \frac{Z \cdot (X \cdot p \cdot q - Y \cdot Z \cdot o + Y \cdot o \cdot q)}{(X \cdot p + Y \cdot o) \cdot (Z^2 + q^2)} = 0$$



$N_1 = 3.00000$
$N_2 = 2.00000$
$N_3 = 0.60000$
$R = 0.33529$

$$\frac{N_3 \cdot ((N_1 + N_2) - N_2 \cdot N_3)}{(N_1 + N_2) \cdot (N_3^2 + 1)} - R = 0.00000$$

4RST1AB4R2



$N_1 = 3.41649$
$N_2 = 2.01205$
$N_3 = 1.29034$
$N_4 = 0.91992$
$R = 0.34702$

Unit. $AB := 1$ Given. $N_1 := 3.41649$ $N_2 := 2.01205$ $N_3 := 1.29034$ $N_4 := .91992$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

$AC := \frac{N_2}{N_1 + N_2}$ $BN_3 := \sqrt{N_3^2 + AB^2}$

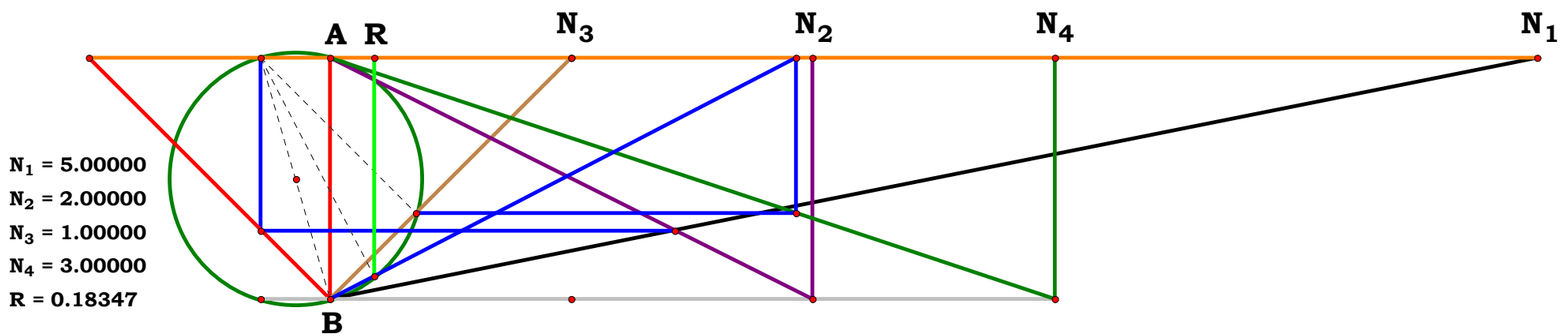
$CN_3 := N_3 + AC$ $EN_3 := \frac{N_3 \cdot CN_3}{BN_3}$

$EF := AB \cdot \left(\frac{BN_3 - EN_3}{BN_3} \right)$ $AG := N_4 \cdot (AB - EF)$

$BG := \sqrt{AG^2 + AB^2}$ $CG := AG + AC$

$FG := \frac{AG \cdot CG}{BG}$ $R := AG \cdot \left(\frac{BG - FG}{BG} \right)$

$R = 0.347019$



$N_1 = 5.00000$
$N_2 = 2.00000$
$N_3 = 1.00000$
$N_4 = 3.00000$
$R = 0.18347$

$$\frac{(N_3 \cdot N_4 \cdot (N_1+N_2)^2 \cdot (N_3^2+1) \cdot (N_2+N_1 \cdot N_3+N_2 \cdot N_3) - N_2 \cdot N_3^2 \cdot N_4^2 \cdot (N_2+N_1 \cdot N_3+N_2 \cdot N_3)^2)}{((N_1+N_2) \cdot (N_3^2 \cdot N_4^2 \cdot (N_2+N_1 \cdot N_3+N_2 \cdot N_3)^2 + (N_3^2+1)^2 \cdot (N_1+N_2)^2))} - R = 0.00000$$

Definitions.

$$R - \frac{N_3 \cdot N_4 \cdot (AC + N_3) \cdot (N_3^2 - AC \cdot N_3^2 \cdot N_4 - AC^2 \cdot N_3 \cdot N_4 + 1)}{AC^2 \cdot N_3^2 \cdot N_4^2 + 2 \cdot AC \cdot N_3^3 \cdot N_4^2 + N_3^4 \cdot N_4^2 + N_3^4 + 2 \cdot N_3^2 + 1} = 0$$

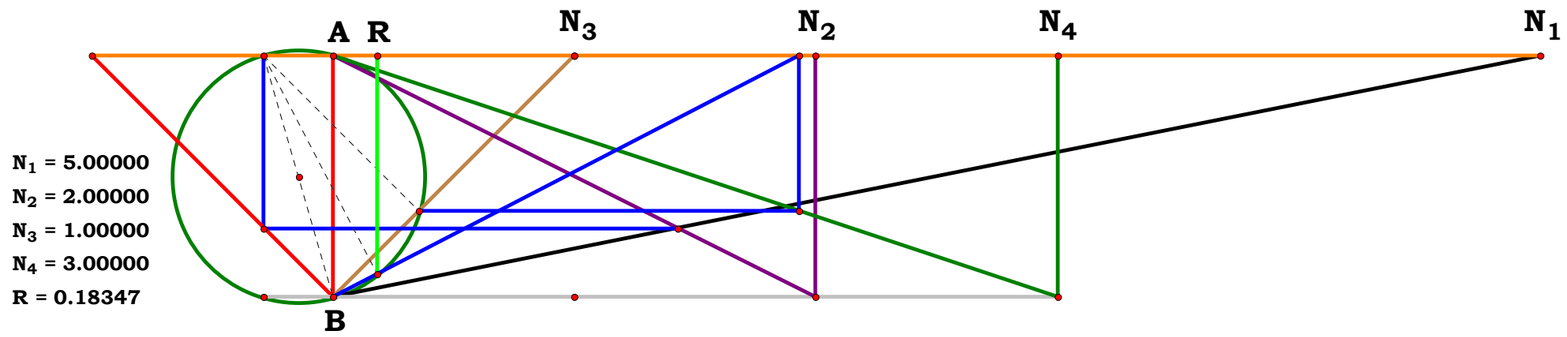
$$R - \frac{N_3 \cdot N_4 \cdot (N_1 + N_2)^2 \cdot (N_3^2 + 1) \cdot (N_2 + N_1 \cdot N_3 + N_2 \cdot N_3) - N_2 \cdot N_3^2 \cdot N_4^2 \cdot (N_2 + N_1 \cdot N_3 + N_2 \cdot N_3)^2}{(N_1 + N_2) \cdot \left[N_3^2 \cdot N_4^2 \cdot (N_2 + N_1 \cdot N_3 + N_2 \cdot N_3)^2 + (N_3^2 + 1)^2 \cdot (N_1 + N_2)^2 \right]} = 0$$

$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{N_u^2 \cdot [A \cdot C + N_u \cdot (A + B)] \cdot [D \cdot (C^2 + N_u^2) \cdot (A + B)^2 - [A \cdot N_u^2 \cdot (A \cdot C + A \cdot N_u + B \cdot N_u)]]}{\left[D^2 \cdot (C^2 + N_u^2)^2 \cdot (A + B)^2 + N_u^4 \cdot (A \cdot C + A \cdot N_u + B \cdot N_u)^2 \right] \cdot (A + B)} = 0$$

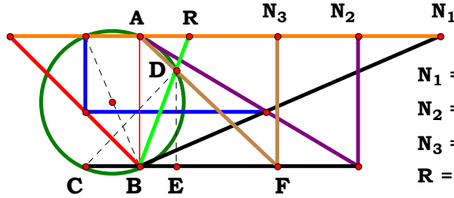
$$N_1 - \frac{W}{m} = 0 \quad N_2 - \frac{X}{n} = 0 \quad N_3 - \frac{Y}{o} = 0 \quad N_4 - \frac{Z}{p} = 0$$

$$R - \frac{Y \cdot Z \cdot (W \cdot Y \cdot n + X \cdot Y \cdot m + X \cdot m \cdot o) \cdot \left[p \cdot \left(Y^2 + o^2\right) \cdot (W \cdot n + X \cdot m)^2 - Z \cdot X \cdot Y \cdot m \cdot (W \cdot Y \cdot n + X \cdot Y \cdot m + X \cdot m \cdot o)\right]}{(W \cdot n + X \cdot m) \cdot \left[Z^2 \cdot Y^2 \cdot (W \cdot Y \cdot n + X \cdot Y \cdot m + X \cdot m \cdot o)^2 + p^2 \cdot \left(Y^2 + o^2\right)^2 \cdot (W \cdot n + X \cdot m)^2\right]} = 0$$



$$\frac{(N_3 \cdot N_4 \cdot (N_1 + N_2)^2 \cdot (N_3^2 + 1) \cdot (N_2 + N_1 \cdot N_3 + N_2 \cdot N_3) - N_2 \cdot N_3^2 \cdot N_4^2 \cdot (N_2 + N_1 \cdot N_3 + N_2 \cdot N_3)^2)}{((N_1 + N_2) \cdot (N_3^2 \cdot N_4^2 \cdot (N_2 + N_1 \cdot N_3 + N_2 \cdot N_3)^2 + (N_3^2 + 1)^2 \cdot (N_1 + N_2)^2))} - R = 0.00000$$

4RST1AB4R3



$N_1 = 2.30262$
$N_2 = 1.67305$
$N_3 = 1.05789$
$R = 0.37521$

Unit. $AB := 1$ **Given.** $N_1 := 2.30262$ $N_2 := 1.67305$ $N_3 := 1.05789$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

$BC := \frac{N_2}{N_1 + N_2}$ $AF := \sqrt{N_3^2 + AB^2}$

$CF := N_3 + BC$ $DF := \frac{N_3 \cdot CF}{AF}$

$BE := \frac{N_3 \cdot (AF - DF)}{AF}$ $R := \frac{AF \cdot BE}{DF}$

$R = 0.375202$

Definitions.

$$R - \left(\frac{BC^2 + 1}{BC + N_3} - BC \right) = 0$$

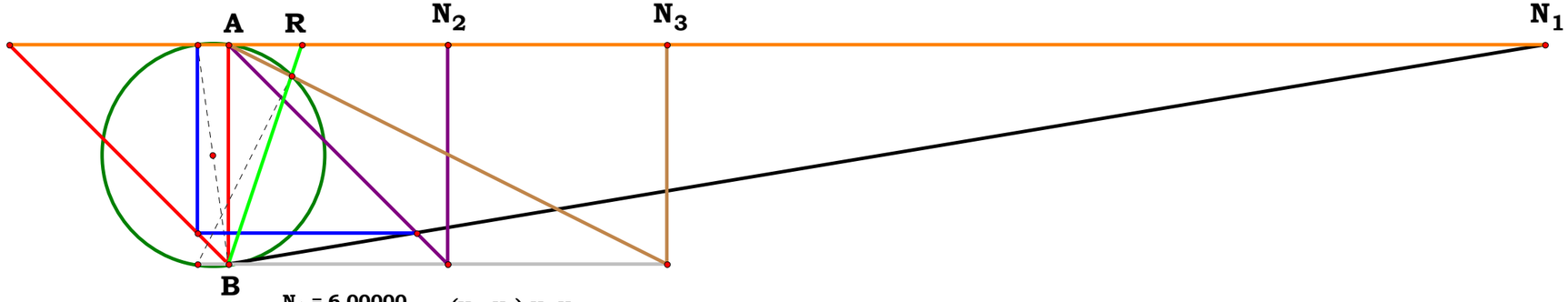
$$R - \frac{N_1 + N_2 - N_2 \cdot N_3}{N_2 + N_1 \cdot N_3 + N_2 \cdot N_3} = 0$$

$$N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0$$

$$R - \frac{C \cdot (A + B) - A \cdot N_u}{A \cdot C + N_u \cdot (A + B)} = 0$$

$$N_1 - \frac{X}{o} = 0 \quad N_2 - \frac{Y}{p} = 0 \quad N_3 - \frac{Z}{q} = 0$$

$$R - \frac{X \cdot p \cdot q - Y \cdot Z \cdot o + Y \cdot o \cdot q}{X \cdot Z \cdot p + Y \cdot Z \cdot o + Y \cdot o \cdot q} = 0$$

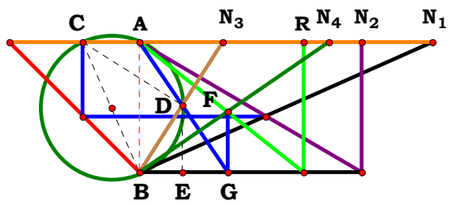


$N_1 = 6.00000$
$N_2 = 1.00000$
$N_3 = 2.00000$

$\frac{(N_1+N_2)-N_2 \cdot N_3}{N_2+N_1 \cdot N_3+N_2 \cdot N_3} - R = 0.00000$

$R = 0.33333$

4RST1AB4R4



$N_1 = 2.24451$
$N_2 = 1.70210$
$N_3 = 0.64140$
$N_4 = 1.45264$
$R = 1.25869$

Unit. $AB := 1$ Given. $N_1 := 2.24451$ $N_2 := 1.70210$ $N_3 := .64140$ $N_4 := 1.45264$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

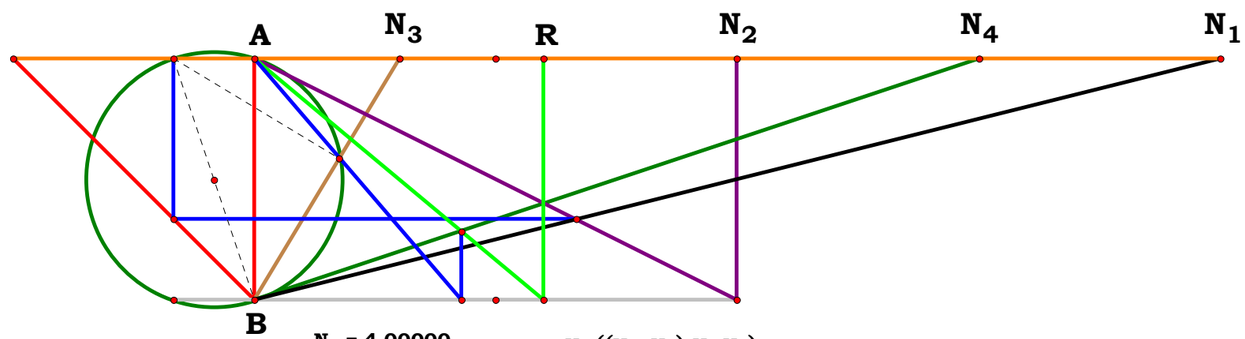
$AC := \frac{N_2}{N_1 + N_2}$ $CN_3 := N_3 + AC$

$BN_3 := \sqrt{N_3^2 + AB^2}$ $DN_3 := \frac{N_3 \cdot CN_3}{BN_3}$

$BD := BN_3 - DN_3$ $BE := \frac{N_3 \cdot BD}{BN_3}$

$BG := \frac{BE \cdot BN_3}{DN_3}$ $FG := \frac{AB \cdot BG}{N_4}$

$R := \frac{BG \cdot AB}{AB - FG}$ $R = 1.258684$



$N_1 = 4.00000$
$N_2 = 2.00000$
$N_3 = 0.60000$
$N_4 = 3.00000$
$R = 1.20000$

$\frac{N_4 \cdot ((N_1+N_2)-N_2 \cdot N_3)}{(N_2 \cdot (N_3+N_4)-N_1-N_2)+N_3 \cdot N_4 \cdot (N_1+N_2)} - R = 0.00000$

Definitions.

$$R - \frac{N_4 - AC \cdot N_3 \cdot N_4}{AC \cdot N_3 + AC \cdot N_4 + N_3 \cdot N_4 - 1} = 0$$

$$R - \frac{N_4 \cdot (N_1 + N_2 - N_2 \cdot N_3)}{N_2 \cdot (N_3 + N_4) - N_1 - N_2 + N_3 \cdot N_4 \cdot (N_1 + N_2)} = 0$$

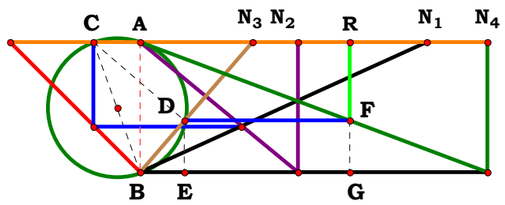
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{N_u \cdot [C \cdot (A + B) - A \cdot N_u]}{(N_u^2 - C \cdot D) \cdot (A + B) + N_u \cdot A \cdot (C + D)} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{W \cdot Z \cdot n \cdot o - X \cdot Y \cdot Z \cdot m + X \cdot Z \cdot m \cdot o}{X \cdot m \cdot (Y \cdot Z + Y \cdot p + Z \cdot o - o \cdot p) + W \cdot (Y \cdot Z \cdot n - n \cdot o \cdot p)} = 0$$

4RST1AB4R5



$N_1 = 2.19608$
$N_2 = 1.20813$
$N_3 = 0.86417$
$N_4 = 2.66336$
$R = 1.60626$

Unit. $AB := 1$ Given. $N_1 := 2.19608$ $N_2 := 1.20813$ $N_3 := .86417$ $N_4 := 2.66336$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

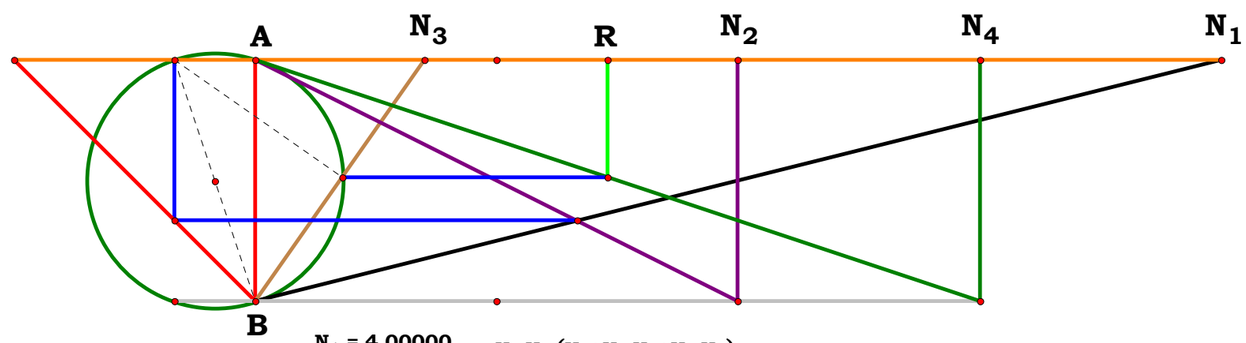
Descriptions.

$AC := \frac{N_2}{N_1 + N_2}$ $CN_3 := AC + N_3$

$BN_3 := \sqrt{N_3^2 + AB^2}$ $DN_3 := \frac{CN_3 \cdot N_3}{BN_3}$

$BD := BN_3 - DN_3$ $DE := \frac{AB \cdot BD}{BN_3}$

$R := N_4 \cdot (AB - DE)$ $R = 1.606255$



$N_1 = 4.00000$
$N_2 = 2.00000$
$N_3 = 0.70000$
$N_4 = 3.00000$
$\frac{N_3 \cdot N_4 \cdot (N_2 + N_1 \cdot N_3 + N_2 \cdot N_3)}{(N_1 + N_2) \cdot (N_3^2 + 1)} - R = 0.00000$
$R = 1.45638$

Definitions.

$$R - \frac{N_3 \cdot N_4 \cdot (AC + N_3)}{N_3^2 + 1} = 0$$

$$R - \frac{N_3 \cdot N_4 \cdot (N_2 + N_1 \cdot N_3 + N_2 \cdot N_3)}{(N_1 + N_2) \cdot (N_3^2 + 1)} = 0$$

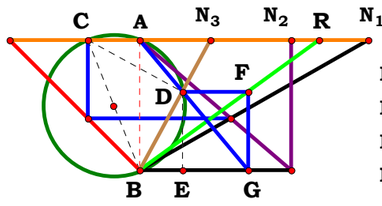
$$N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0 \quad N_4 - \frac{N_u}{D} = 0$$

$$R - \frac{N_u^2 \cdot [A \cdot C + N_u \cdot (A + B)]}{D \cdot (C^2 + N_u^2) \cdot (A + B)} = 0$$

$$N_1 - \frac{W}{m} = 0 \quad N_2 - \frac{X}{n} = 0 \quad N_3 - \frac{Y}{o} = 0 \quad N_4 - \frac{Z}{p} = 0$$

$$R - \frac{Y \cdot Z \cdot (W \cdot Y \cdot n + X \cdot Y \cdot m + X \cdot m \cdot o)}{p \cdot (W \cdot n + X \cdot m) \cdot (Y^2 + o^2)} = 0$$

4RST1AB4R6



$N_1 = 1.75053$
$N_2 = 1.15970$
$N_3 = 0.54454$
$R = 1.37485$

Unit. $AB := 1$ Given. $N_1 := 1.75053$ $N_2 := 1.15970$ $N_3 := .54454$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

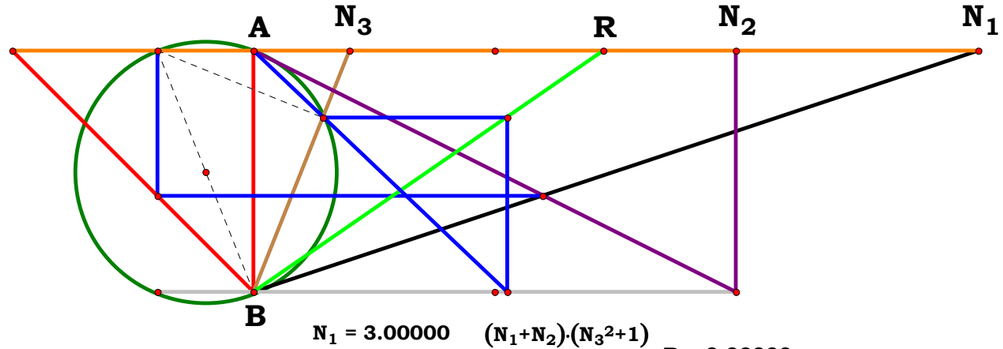
$AC := \frac{N_2}{N_1 + N_2}$ $CN_3 := AC + N_3$

$BN_3 := \sqrt{N_3^2 + AB^2}$ $DN_3 := \frac{CN_3 \cdot N_3}{BN_3}$

$BD := BN_3 - DN_3$ $DE := \frac{AB \cdot BD}{BN_3}$

$BE := N_3 \cdot DE$ $BG := \frac{BE \cdot AB}{(AB - DE)}$

$R := \frac{BG \cdot AB}{DE}$ $R = 1.374848$



$N_1 = 3.00000$
$N_2 = 2.00000$
$N_3 = 0.40000$
$R = 1.45000$

$\frac{(N_1+N_2)\cdot(N_3^2+1)}{N_2+N_1\cdot N_3+N_2\cdot N_3} - R = 0.00000$

Definitions.

$R - \frac{N_3^2 + 1}{AC + N_3} = 0$

$R - \frac{(N_1 + N_2) \cdot (N_3^2 + 1)}{N_2 + N_1 \cdot N_3 + N_2 \cdot N_3} = 0$

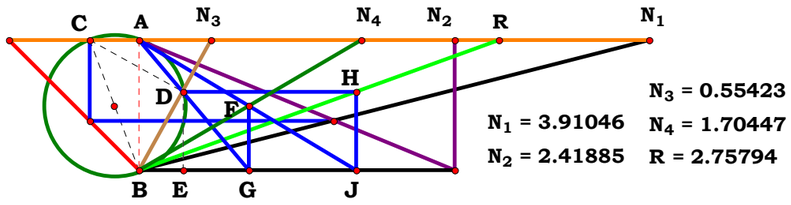
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$

$R - \frac{(C^2 + N_u^2) \cdot (A + B)}{C \cdot [A \cdot C + N_u \cdot (A + B)]} = 0$

$N_1 - \frac{X}{o} = 0$ $N_2 - \frac{Y}{p} = 0$ $N_3 - \frac{Z}{q} = 0$

$R - \frac{(X \cdot p + Y \cdot o) \cdot (Z^2 + q^2)}{Y \cdot o \cdot q^2 + X \cdot Z \cdot p \cdot q + Y \cdot Z \cdot o \cdot q} = 0$

4RST1AB4R7



$N_3 = 0.55423$
$N_1 = 3.91046$ $N_4 = 1.70447$
$N_2 = 2.41885$ $R = 2.75794$

Unit. $AB := 1$ **Given.** $N_1 := 3.91046$ $N_2 := 2.41885$ $N_3 := .55423$

$N_4 := 1.70447$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

$AC := \frac{N_2}{N_1 + N_2}$ $BN_3 := \sqrt{N_3^2 + AB^2}$

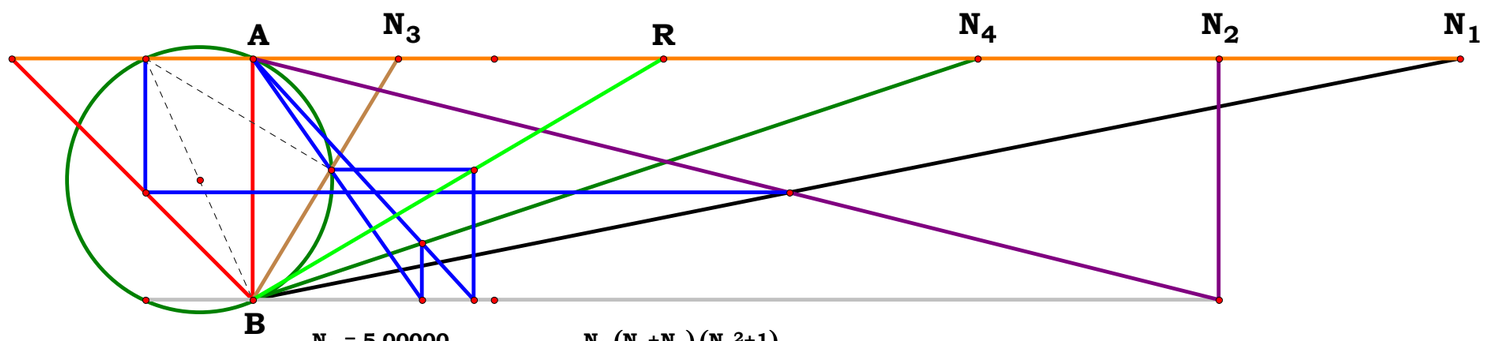
$CN_3 := N_3 + AC$ $DN_3 := \frac{N_3 \cdot CN_3}{BN_3}$

$BD := BN_3 - DN_3$ $BE := \frac{N_3 \cdot BD}{BN_3}$

$DE := \frac{AB \cdot BD}{BN_3}$ $BG := \frac{BE \cdot AB}{AB - DE}$

$FG := \frac{AB \cdot BG}{N_4}$ $BJ := \frac{BG}{AB - FG}$

$R := \frac{BJ \cdot AB}{DE}$ $R = 2.757919$



$N_1 = 5.00000$
$N_2 = 4.00000$
$N_3 = 0.60000$
$N_4 = 3.00000$
$R = 1.70000$

$\frac{N_4 \cdot (N_1 + N_2) \cdot (N_3^2 + 1)}{(N_2 \cdot (N_3 + N_4) - (N_1 + N_2)) + N_3 \cdot N_4 \cdot (N_1 + N_2)} - R = 0.00000$

Definitions.

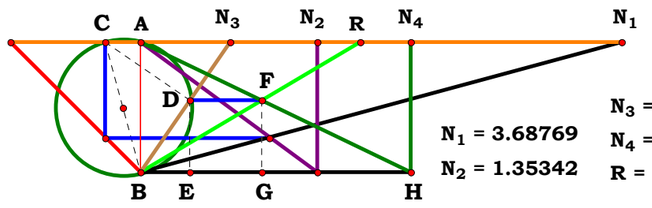
$R - \frac{N_4 \cdot (N_3^2 + 1)}{AC \cdot N_3 + AC \cdot N_4 + N_3 \cdot N_4 - 1} = 0$

$R - \frac{N_4 \cdot (N_1 + N_2) \cdot (N_3^2 + 1)}{N_2 \cdot (N_3 + N_4) - N_1 - N_2 + N_3 \cdot N_4 \cdot (N_1 + N_2)} = 0$ $N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$R - \frac{N_u \cdot (C^2 + N_u^2) \cdot (A + B)}{C \cdot (N_u^2 - C \cdot D) \cdot (A + B) + N_u \cdot A \cdot C \cdot (C + D)} = 0$ $N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$R - \frac{Z \cdot (W \cdot n + X \cdot m) \cdot (Y^2 + o^2)}{o \cdot [W \cdot n \cdot (Y \cdot Z - o \cdot p) + X \cdot m \cdot (Y \cdot Z + Y \cdot p + Z \cdot o - o \cdot p)]} = 0$

4RST1AB4R8



$N_1 = 3.68769$
$N_2 = 1.35342$
$N_3 = 0.68983$
$N_4 = 2.07253$
$R = 1.68148$

Unit. $AB := 1$ Given. $N_1 := 3.68769$ $N_2 := 1.35342$ $N_3 := .68983$ $N_4 := 2.07253$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

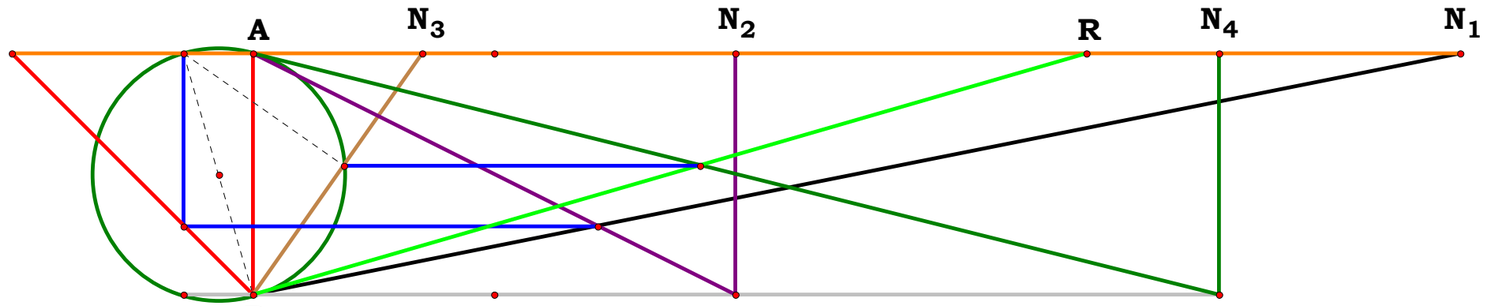
Descriptions.

$$AC := \frac{N_2}{N_1 + N_2} \qquad CN_3 := N_3 + AC$$

$$BN_3 := \sqrt{N_3^{\,2} + AB^2} \qquad DN_3 := \frac{N_3 \cdot CN_3}{BN_3}$$

$$DE := \frac{AB \cdot (BN_3 - DN_3)}{BN_3} \qquad BG := N_4 \cdot (AB - DE)$$

$$R := \frac{BG \cdot AB}{DE} \qquad R = 1.681505$$



Definitions.

$$R - \frac{N_3 \cdot N_4 \cdot (AC + N_3)}{(1 - AC \cdot N_3)} = 0$$

$$R - \frac{N_3 \cdot N_4 \cdot (N_2 + N_1 \cdot N_3 + N_2 \cdot N_3)}{N_1 + N_2 - N_2 \cdot N_3} = 0$$

$$N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0 \quad N_4 - \frac{N_u}{D} = 0$$

$$R - \frac{N_u^{\,2} \cdot [A \cdot C + N_u \cdot (A + B)]}{C \cdot D \cdot [A \cdot C + (B \cdot C - A \cdot N_u)]} = 0$$

$$N_1 - \frac{W}{m} = 0 \quad N_2 - \frac{X}{n} = 0 \quad N_3 - \frac{Y}{o} = 0 \quad N_4 - \frac{Z}{p} = 0$$

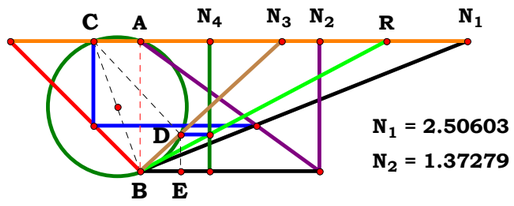
$$R - \frac{Y \cdot Z \cdot (W \cdot Y \cdot n + X \cdot Y \cdot m + X \cdot m \cdot o)}{o \cdot p \cdot (W \cdot n \cdot o - X \cdot Y \cdot m + X \cdot m \cdot o)} = 0$$

B

$N_1 = 5.00000$
$N_2 = 2.00000$
$N_3 = 0.70000$
$N_4 = 4.00000$
$R = 3.45000$

$$\frac{N_3 \cdot N_4 \cdot (N_2 + N_1 \cdot N_3 + N_2 \cdot N_3)}{(N_1 + N_2) - N_2 \cdot N_3} - R = 0.00000$$

4RST1AB4R9



$N_1 = 2.50603$
$N_2 = 1.37279$
$N_3 = 1.08694$
$N_4 = 0.53249$
$R = 1.88783$

Unit. $AB := 1$ Given. $N_1 := 2.50603$ $N_2 := 1.37279$ $N_3 := 1.08694$ $N_4 := .53249$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

$AC := \frac{N_2}{N_1 + N_2}$ $CN_3 := N_3 + AC$

$BN_3 := \sqrt{N_3^2 + AB^2}$ $DN_3 := \frac{N_3 \cdot CN_3}{BN_3}$

$DE := \frac{AB \cdot (BN_3 - DN_3)}{BN_3}$ $R := \frac{N_4}{DE}$

$R = 1.887817$

Definitions.

$R - \frac{-N_4 \cdot (N_3^2 + 1)}{AC \cdot N_3 - 1} = 0$

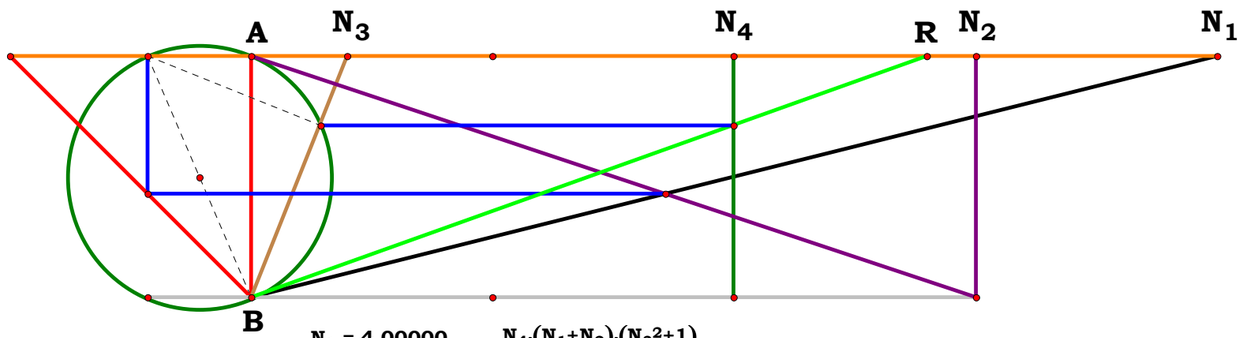
$R - \frac{N_4 \cdot (N_1 + N_2) \cdot (N_3^2 + 1)}{N_1 + N_2 - N_2 \cdot N_3} = 0$

$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$R - \frac{N_u \cdot (C^2 + N_u^2) \cdot (A + B)}{C \cdot D \cdot [C \cdot (A + B) - A \cdot N_u]} = 0$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

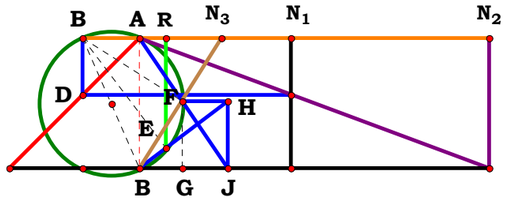
$R - \frac{Z \cdot (W \cdot n + X \cdot m) \cdot (Y^2 + o^2)}{o \cdot p \cdot (W \cdot n \cdot o - X \cdot Y \cdot m + X \cdot m \cdot o)} = 0$



$N_1 = 4.00000$
$N_2 = 3.00000$
$N_3 = 0.40000$
$N_4 = 2.00000$
$R = 2.80000$

$\frac{N_4 \cdot (N_1 + N_2) \cdot (N_3^2 + 1)}{(N_1 + N_2) - N_2 \cdot N_3} - R = 0.00000$

4RST1AB5R0



$N_1 = 1.15970$
$N_2 = 2.68037$
$N_3 = 0.63171$
$R = 0.20783$

Unit. $AB := 1$ Given. $N_1 := 1.15970$ $N_2 := 2.68037$ $N_3 := .63171$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

$AC := \frac{N_1}{N_2}$ $BN_3 := \sqrt{N_3^2 + AB^2}$ $CN_3 := N_3 + AC$

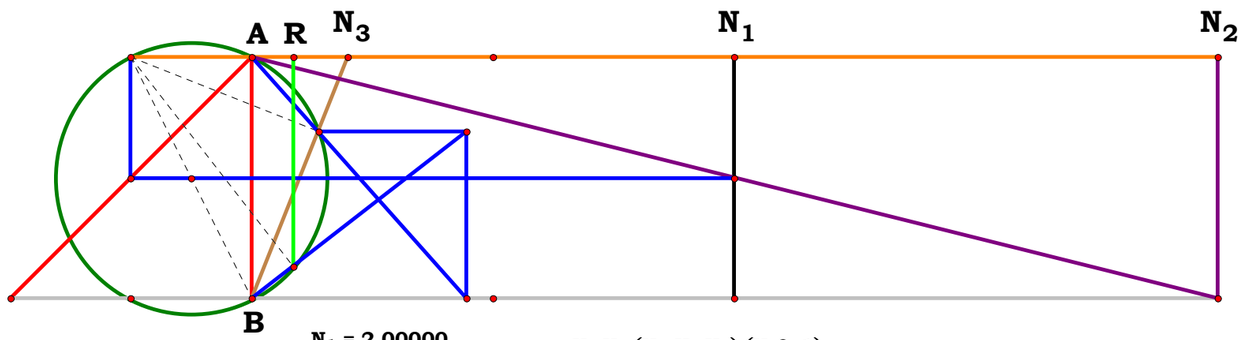
$FN_3 := \frac{N_3 \cdot CN_3}{BN_3}$ $BF := BN_3 - FN_3$ $FG := \frac{AB \cdot BF}{BN_3}$

$BG := \frac{N_3 \cdot BF}{BN_3}$ $GJ := \frac{BG \cdot BF}{FN_3}$ $BJ := BG + GJ$

$HJ := FG$ $AK := \frac{BJ \cdot AB}{HJ}$ $BK := \sqrt{AK^2 + AB^2}$

$CK := AK + AC$ $EK := \frac{AK \cdot CK}{BK}$ $BE := BK - EK$

$R := \frac{AK \cdot BE}{BK}$ $R = 0.207828$



$N_1 = 2.00000$
$N_2 = 4.00000$
$N_3 = 0.40000$
$R = 0.17320$

$$\frac{N_2 \cdot N_3 \cdot (N_2 - N_1 \cdot N_3) \cdot (N_3^2+1)}{N_1^2+N_2 \cdot N_3 \cdot (N_2 \cdot N_3^3+3 \cdot N_2 \cdot N_3+2 \cdot N_1)+N_2^2} - R = 0.00000$$

Definitions.

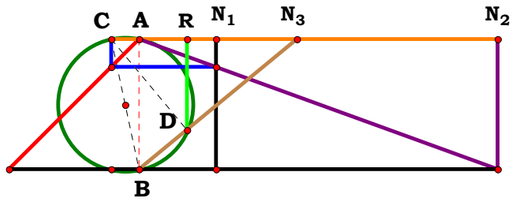
$$R - \frac{N_3 \cdot \left(N_3^2 + 1\right) \cdot \left(1 - AC \cdot N_3\right)}{AC^2 + 2 \cdot AC \cdot N_3 + N_3^4 + 3 \cdot N_3^2 + 1} = 0$$

$$R - \frac{N_2 \cdot N_3 \cdot \left(N_2 - N_1 \cdot N_3\right) \cdot \left(N_3^2 + 1\right)}{N_1^2 + N_2 \cdot N_3 \cdot \left(N_2 \cdot N_3^3 + 3 \cdot N_2 \cdot N_3 + 2 \cdot N_1\right) + N_2^2} = 0 \qquad N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0$$

$$R - \frac{A \cdot N_u \cdot \left(C^2 + N_u^2\right) \cdot \left(A \cdot C - B \cdot N_u\right)}{A \cdot N_u \cdot \left[C^2 \cdot \left(2 \cdot B \cdot C + 3 \cdot A \cdot N_u\right) + A \cdot N_u^3\right] + C^4 \cdot \left(A^2 + B^2\right)} = 0 \qquad N_1 - \frac{X}{o} = 0 \quad N_2 - \frac{Y}{p} = 0 \quad N_3 - \frac{Z}{q} = 0$$

$$R - \frac{Y \cdot Z \cdot o \cdot (Y \cdot o \cdot q - X \cdot Z \cdot p) \cdot \left(Z^2 + q^2\right)}{Y^2 \cdot o^2 \cdot \left(Z^4 + 3 \cdot Z^2 \cdot q^2 + q^4\right) + X \cdot p \cdot q^3 \cdot (2 \cdot Y \cdot Z \cdot o + X \cdot p \cdot q)} = 0$$

4RST1AB5R1



$N_1 = 0.58824$
$N_2 = 2.74817$
$N_3 = 1.21286$
$R = 0.36341$

Unit. $AB := 1$ **Given.** $N_1 := .58824$ $N_2 := 2.74817$ $N_3 := 1.21286$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

$AC := \frac{N_1}{N_2}$ $BN_3 := \sqrt{N_3^2 + AB^2}$

$CN_3 := N_3 + AC$ $DN_3 := \frac{N_3 \cdot CN_3}{BN_3}$

$BD := BN_3 - DN_3$ $R := \frac{N_3 \cdot BD}{BN_3}$

$R = 0.363407$

Definitions.

$$R - \frac{N_3 \cdot (1 - AC \cdot N_3)}{N_3^2 + 1} = 0$$

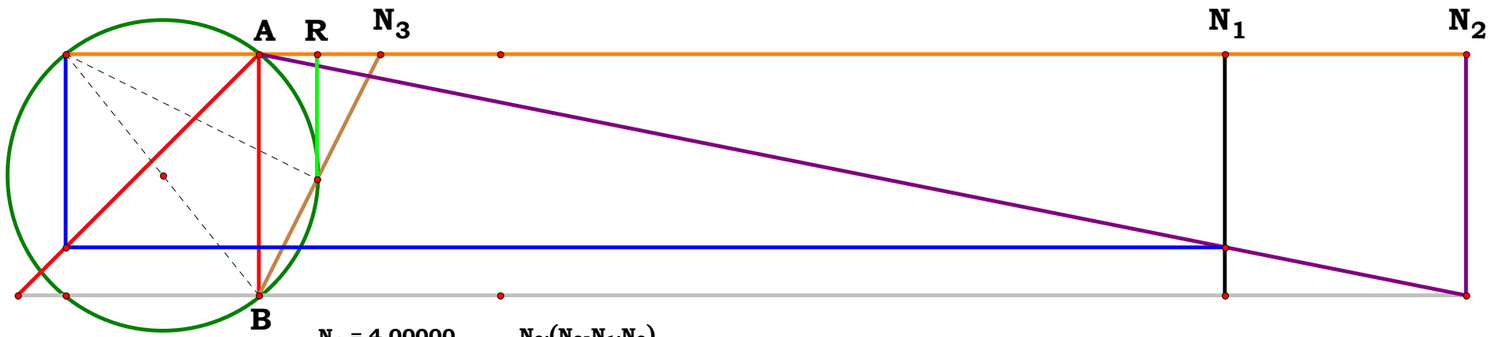
$$R - \frac{N_3 \cdot (N_2 - N_1 \cdot N_3)}{N_2 \cdot (N_3^2 + 1)} = 0$$

$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$

$$R - \frac{N_u \cdot (A \cdot C - B \cdot N_u)}{A \cdot (C^2 + N_u^2)} = 0$$

$N_1 - \frac{X}{o} = 0$ $N_2 - \frac{Y}{p} = 0$ $N_3 - \frac{Z}{q} = 0$

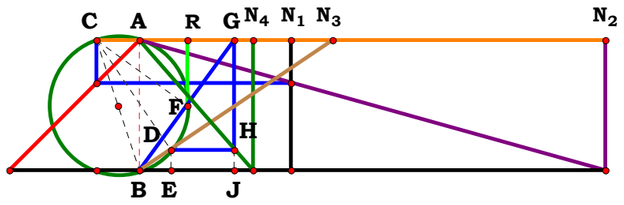
$$R - \frac{Z \cdot (Y \cdot o \cdot q - X \cdot Z \cdot p)}{Y \cdot o \cdot (Z^2 + q^2)} = 0$$



$N_1 = 4.00000$
$N_2 = 5.00000$
$N_3 = 0.50000$
$R = 0.24000$

$\frac{N_3 \cdot (N_2 - N_1 \cdot N_3)}{N_2 \cdot (N_3^2 + 1)} - R = 0.00000$

4RST1AB5R2



$N_1 = 1.15970$
$N_2 = 3.57146$
$N_3 = 1.48406$
$N_4 = 0.87149$
$R = 0.36334$

Unit. $AB := 1$ Given. $N_1 := 1.15970$ $N_2 := 3.57146$ $N_3 := 1.48406$

$N_4 := .87149$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

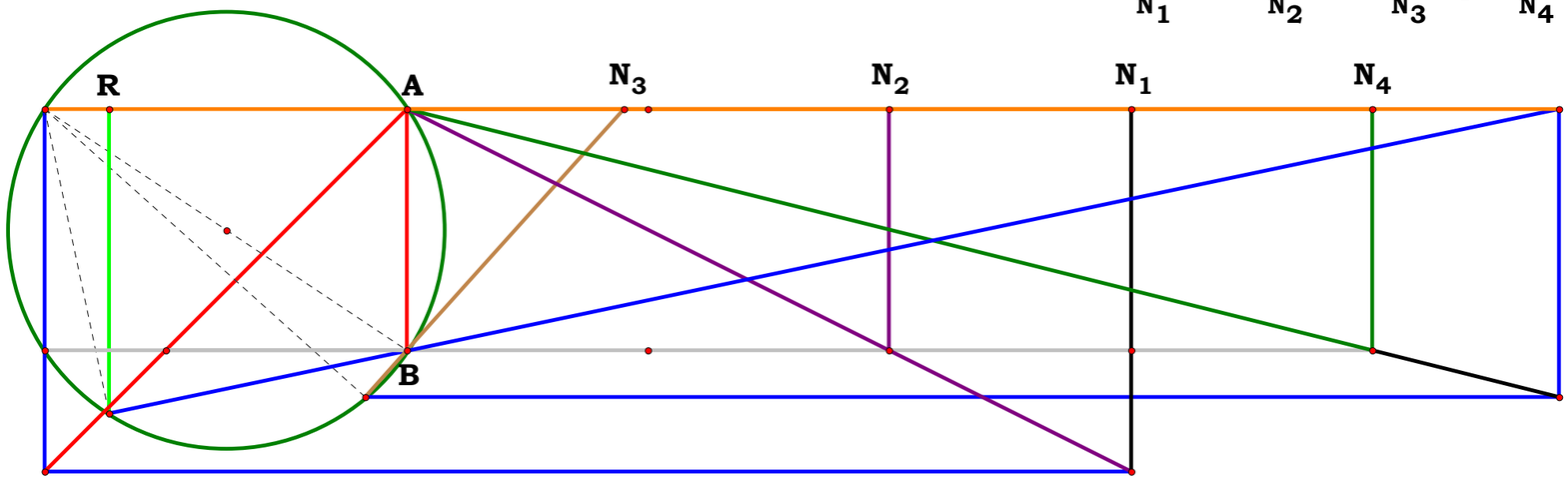
$AC := \frac{N_1}{N_2}$ $BN_3 := \sqrt{N_3^2 + AB^2}$

$CN_3 := N_3 + AC$ $EN_3 := \frac{N_3 \cdot CN_3}{BN_3}$

$EF := AB \cdot \left(\frac{BN_3 - EN_3}{BN_3} \right)$ $AG := N_4 \cdot (AB - EF)$

$BG := \sqrt{AG^2 + AB^2}$ $CG := AG + AC$

$FG := \frac{AG \cdot CG}{BG}$ $R := AG \cdot \left(\frac{BG - FG}{BG} \right)$



$R = 0.363336$

Definitions.

$N_1 = 3.00000$
$N_2 = 2.00000$
$N_3 = 0.90000$
$N_4 = 4.00000$
$R = -1.23625$

$$\frac{N_2^2 \cdot N_3 \cdot N_4 \cdot (N_1 + N_2 \cdot N_3) \cdot (N_3^2 + 1) - N_1 \cdot N_3^2 \cdot N_4^2 \cdot (N_1 + N_2 \cdot N_3)^2}{N_2 \cdot N_3^2 \cdot N_4^2 \cdot (N_1 + N_2 \cdot N_3)^2 + N_2^3 \cdot (N_3^2 + 1)^2} - R = 0.00000$$

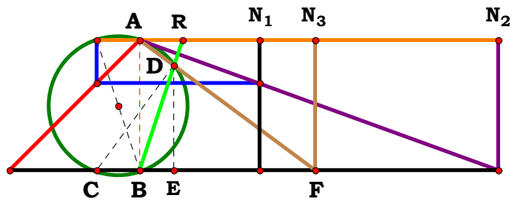
$$R - \frac{N_3 \cdot N_4 \cdot (AC + N_3) \cdot (N_3^2 - N_4 \cdot AC \cdot N_3^2 - N_4 \cdot AC^2 \cdot N_3 + 1)}{AC^2 \cdot N_3^2 \cdot N_4^2 + 2 \cdot AC \cdot N_3^3 \cdot N_4^2 + N_3^4 \cdot N_4^2 + N_3^4 + 2 \cdot N_3^2 + 1} = 0$$

$$R - \frac{N_2^2 \cdot N_3 \cdot N_4 \cdot (N_1 + N_2 \cdot N_3) \cdot (N_3^2 + 1) - N_1 \cdot N_3^2 \cdot N_4^2 \cdot (N_1 + N_2 \cdot N_3)^2}{N_2 \cdot N_3^2 \cdot N_4^2 \cdot (N_1 + N_2 \cdot N_3)^2 + N_2^3 \cdot (N_3^2 + 1)^2} = 0 \quad N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0 \quad N_4 - \frac{N_u}{D} = 0$$

$$R - \frac{N_u^2 \cdot (B \cdot C + A \cdot N_u) \cdot [D \cdot A^2 \cdot (C^2 + N_u^2) - B \cdot N_u^2 \cdot (B \cdot C + A \cdot N_u)]}{A^3 \cdot D^2 \cdot (C^2 + N_u^2)^2 + A \cdot N_u^4 \cdot (B \cdot C + A \cdot N_u)^2} = 0 \quad N_1 - \frac{W}{m} = 0 \quad N_2 - \frac{X}{n} = 0 \quad N_3 - \frac{Y}{o} = 0 \quad N_4 - \frac{Z}{p} = 0$$

$$R - \frac{Y \cdot Z \cdot (X \cdot Y \cdot m + W \cdot n \cdot o) \cdot [X^2 \cdot m^2 \cdot p \cdot (Y^2 + o^2) - W \cdot Y \cdot Z \cdot n \cdot (X \cdot Y \cdot m + W \cdot n \cdot o)]}{Z^2 \cdot X \cdot Y^2 \cdot m \cdot (X \cdot Y \cdot m + W \cdot n \cdot o)^2 + X^3 \cdot m^3 \cdot p^2 \cdot (Y^2 + o^2)^2} = 0$$

4RST1AB5R3



$N_1 = 0.91756$
$N_2 = 2.74817$
$N_3 = 1.34846$
$R = 0.32679$

Unit. $AB := 1$ Given. $N_1 := .91756$ $N_2 := 2.74817$ $N_3 := 1.34846$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

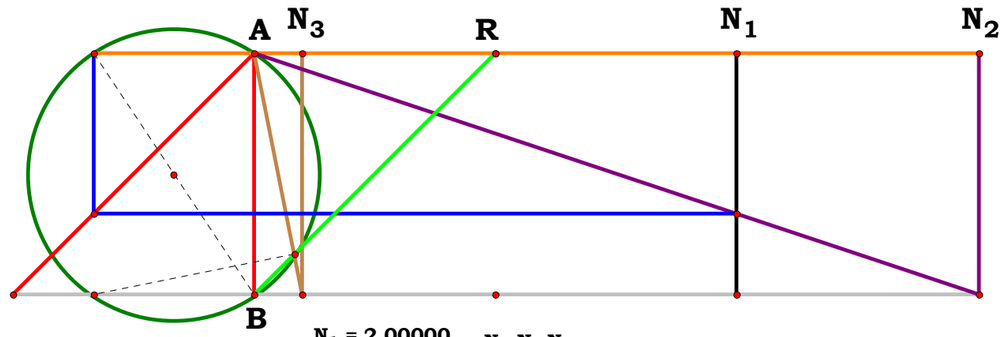
Descriptions.

$BC := \frac{N_1}{N_2}$ $AF := \sqrt{N_3^2 + AB^2}$

$CF := N_3 + BC$ $DF := \frac{N_3 \cdot CF}{AF}$

$BE := \frac{N_3 \cdot (AF - DF)}{AF}$ $R := \frac{AF \cdot BE}{DF}$

$R = 0.326792$



$N_1 = 2.00000$
$N_2 = 3.00000$
$N_3 = 0.20000$
$R = 1.00000$
$\frac{N_2 - N_1 \cdot N_3}{N_1 + N_2 \cdot N_3} = 1.00000$

Definitions.

$R - \left(\frac{BC^2 + 1}{BC + N_3} - BC \right) = 0$

$R - \frac{N_2 - N_1 \cdot N_3}{N_1 + N_2 \cdot N_3} = 0$

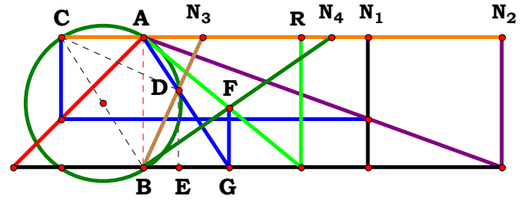
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$

$R - \frac{A \cdot C - B \cdot N_u}{B \cdot C + A \cdot N_u} = 0$

$N_1 - \frac{X}{o} = 0$ $N_2 - \frac{Y}{p} = 0$ $N_3 - \frac{Z}{q} = 0$

$R - \frac{Y \cdot o \cdot q - X \cdot Z \cdot p}{Y \cdot Z \cdot o + X \cdot p \cdot q} = 0$

4RST1AB5R4



$N_1 = 1.72148$
$N_2 = 2.74817$
$N_3 = 0.45737$
$N_4 = 1.44295$
$R = 1.21076$

Unit. $AB := 1$ Given. $N_1 := 1.72148$ $N_2 := 2.74817$ $N_3 := .45737$ $N_4 := 1.44295$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

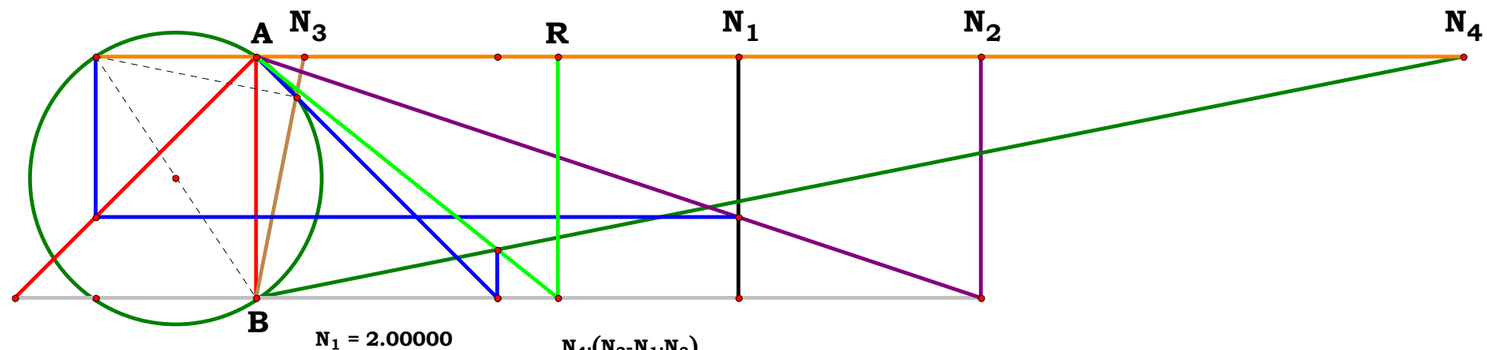
$AC := \frac{N_1}{N_2}$ $CN_3 := N_3 + AC$

$BN_3 := \sqrt{N_3^2 + AB^2}$ $DN_3 := \frac{N_3 \cdot CN_3}{BN_3}$

$BD := BN_3 - DN_3$ $BE := \frac{N_3 \cdot BD}{BN_3}$

$BG := \frac{BE \cdot BN_3}{DN_3}$ $FG := \frac{AB \cdot BG}{N_4}$

$R := \frac{BG \cdot AB}{AB - FG}$ $R = 1.210742$



$N_1 = 2.00000$
$N_2 = 3.00000$
$N_3 = 0.20000$
$N_4 = 5.00000$
$R = 1.25000$

$\frac{N_4 \cdot (N_2 - N_1 \cdot N_3)}{(N_1 \cdot N_3 - N_2) + N_1 \cdot N_4 + N_2 \cdot N_3 \cdot N_4} - R = 0.00000$

Definitions.

$$R - \frac{N_4 - AC \cdot N_3 \cdot N_4}{AC \cdot N_3 + AC \cdot N_4 + N_3 \cdot N_4 - 1} = 0$$

$$R - \frac{N_4 \cdot (N_2 - N_1 \cdot N_3)}{N_1 \cdot N_3 - N_2 + N_1 \cdot N_4 + N_2 \cdot N_3 \cdot N_4} = 0$$

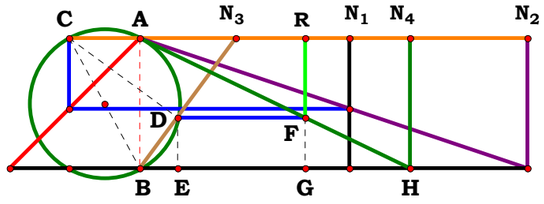
$$N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0 \quad N_4 - \frac{N_u}{D} = 0$$

$$R - \frac{N_u \cdot (A \cdot C - B \cdot N_u)}{A \cdot (N_u^2 - C \cdot D) + B \cdot N_u \cdot (C + D)} = 0$$

$$N_1 - \frac{W}{m} = 0 \quad N_2 - \frac{X}{n} = 0 \quad N_3 - \frac{Y}{o} = 0 \quad N_4 - \frac{Z}{p} = 0$$

$$R - \frac{Z \cdot (X \cdot m \cdot o - W \cdot Y \cdot n)}{X \cdot m \cdot (Y \cdot Z - o \cdot p) + W \cdot n \cdot (Y \cdot p + Z \cdot o)} = 0$$

4RST1AB5R5



$N_1 = 1.60525$
$N_2 = 2.97094$
$N_3 = 0.73826$
$N_4 = 2.07253$
$R = 1.26619$

Unit. $AB := 1$ Given. $N_1 := 1.60525$ $N_2 := 2.9709$ $N_3 := .73826$ $N_4 := 2.07253$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

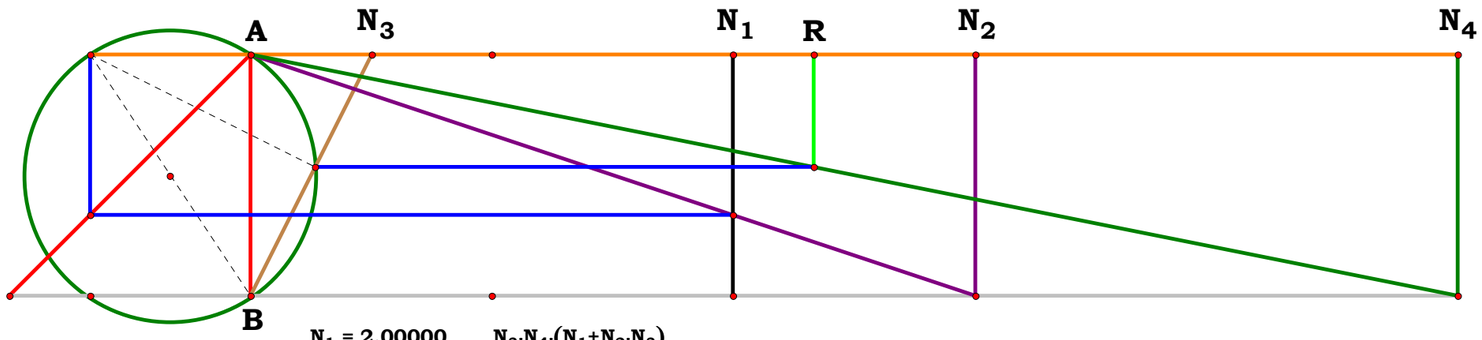
Descriptions.

$AC := \frac{N_1}{N_2}$ $CN_3 := AC + N_3$

$BN_3 := \sqrt{N_3^2 + AB^2}$ $DN_3 := \frac{CN_3 \cdot N_3}{BN_3}$

$BD := BN_3 - DN_3$ $DE := \frac{AB \cdot BD}{BN_3}$

$R := N_4 \cdot (AB - DE)$ $R = 1.266203$



$N_1 = 2.00000$
$N_2 = 3.00000$
$N_3 = 0.50000$
$N_4 = 5.00000$
$R = 2.33333$

$\frac{N_3 \cdot N_4 \cdot (N_1 + N_2 \cdot N_3)}{N_2 \cdot (N_3^2 + 1)} - R = 0.00000$

Definitions.

$$R - \frac{N_3 \cdot N_4 \cdot (AC + N_3)}{N_3^2 + 1} = 0$$

$$R - \frac{N_3 \cdot N_4 \cdot (N_1 + N_2 \cdot N_3)}{N_2 \cdot (N_3^2 + 1)} = 0$$

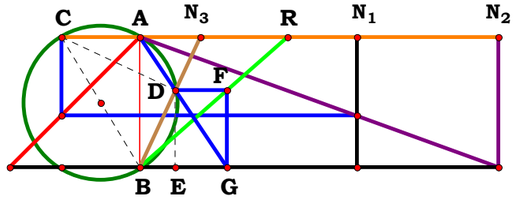
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{N_u^2 \cdot (B \cdot C + A \cdot N_u)}{A \cdot D \cdot (C^2 + N_u^2)} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{Y \cdot Z \cdot (X \cdot Y \cdot m + W \cdot n \cdot o)}{p \cdot (X \cdot m \cdot Y^2 + X \cdot m \cdot o^2)} = 0$$

4RST1AB5R6



$N_1 = 1.66336$
$N_2 = 2.74817$
$N_3 = 0.46705$
$R = 1.13599$

Unit. $AB := 1$ Given. $N_1 := 1.66336$ $N_2 := 2.74817$ $N_3 := .46705$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

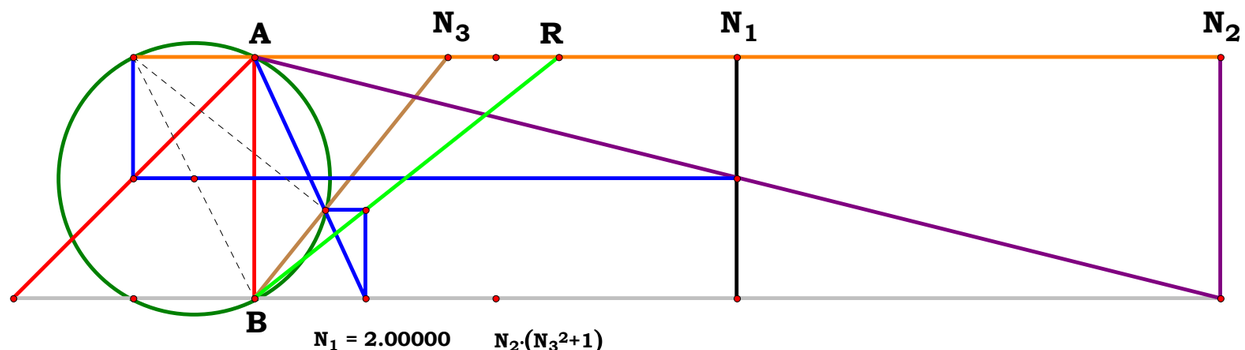
$AC := \frac{N_1}{N_2}$ $CN_3 := AC + N_3$

$BN_3 := \sqrt{N_3^2 + AB^2}$ $DN_3 := \frac{CN_3 \cdot N_3}{BN_3}$

$BD := BN_3 - DN_3$ $DE := \frac{AB \cdot BD}{BN_3}$

$BE := N_3 \cdot DE$ $BG := \frac{BE \cdot AB}{(AB - DE)}$

$R := \frac{BG \cdot AB}{DE}$ $R = 1.135991$



$N_1 = 2.00000$
$N_2 = 4.00000$
$N_3 = 0.80000$
$R = 1.26154$

$\frac{N_2 \cdot (N_3^2+1)}{N_1+N_2 \cdot N_3} - R = 0.00000$

Definitions.

$R - \frac{N_3^2 + 1}{AC + N_3} = 0$

$R - \frac{N_2 \cdot \left(N_3^2 + 1\right)}{N_1 + N_2 \cdot N_3} = 0$

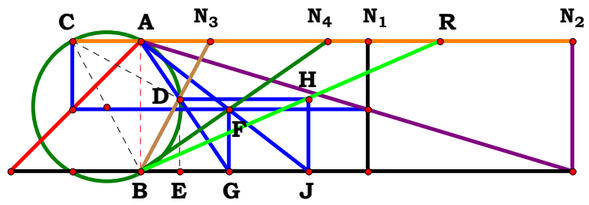
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$

$R - \frac{A \cdot \left(C^2 + N_u^2\right)}{B \cdot C^2 + A \cdot N_u \cdot C} = 0$

$N_1 - \frac{X}{o} = 0$ $N_2 - \frac{Y}{p} = 0$ $N_3 - \frac{Z}{q} = 0$

$R - \frac{Y \cdot o \cdot \left(Z^2 + q^2\right)}{X \cdot p \cdot q^2 + Y \cdot Z \cdot o \cdot q} = 0$

4RST1AB5R7



$N_1 = 1.74085$
$N_2 = 3.30995$
$N_3 = 0.53485$
$N_4 = 1.43327$
$R = 2.29918$

Unit. $AB := 1$ Given. $N_1 := 1.74085$ $N_2 := 3.30995$ $N_3 := .53485$ $N_4 := 1.43347$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

$AC := \frac{N_1}{N_2}$ $BN_3 := \sqrt{N_3^2 + AB^2}$

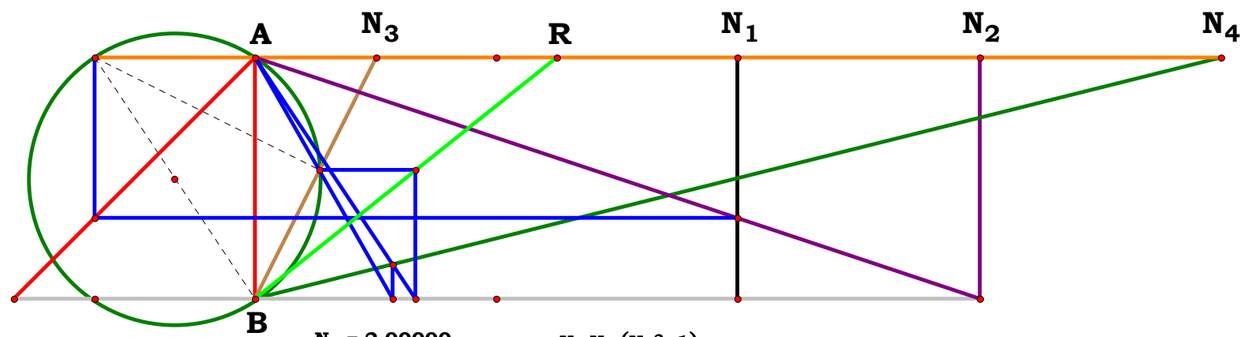
$CN_3 := N_3 + AC$ $DN_3 := \frac{N_3 \cdot CN_3}{BN_3}$

$BD := BN_3 - DN_3$ $BE := \frac{N_3 \cdot BD}{BN_3}$

$DE := \frac{AB \cdot BD}{BN_3}$ $BG := \frac{BE \cdot AB}{AB - DE}$

$FG := \frac{AB \cdot BG}{N_4}$ $BJ := \frac{BG}{AB - FG}$

$R := \frac{BJ \cdot AB}{DE}$ $R = 2.298906$



$N_1 = 2.00000$
$N_2 = 3.00000$
$N_3 = 0.50000$
$N_4 = 4.00000$
$R = 1.25000$

$\frac{N_2 \cdot N_4 \cdot (N_3^2+1)}{(N_1 \cdot N_3 - N_2) + N_1 \cdot N_4 + N_2 \cdot N_3 \cdot N_4} - R = 0.00000$

Definitions.

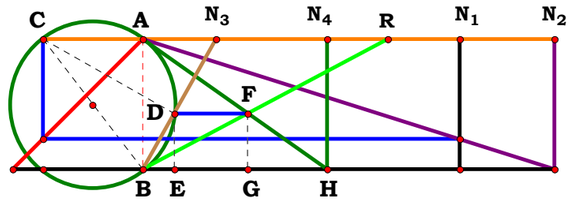
$R - \frac{N_4 \cdot (N_3^2 + 1)}{AC \cdot N_3 + AC \cdot N_4 + N_3 \cdot N_4 - 1} = 0$

$R - \frac{N_2 \cdot N_4 \cdot (N_3^2 + 1)}{N_1 \cdot N_3 - N_2 + N_1 \cdot N_4 + N_2 \cdot N_3 \cdot N_4} = 0$ $N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$R - \frac{A \cdot N_u \cdot (C^2 + N_u^2)}{A \cdot C \cdot (N_u^2 - C \cdot D) + B \cdot C \cdot N_u \cdot (C + D)} = 0$ $N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$R - \frac{X \cdot Z \cdot m \cdot (Y^2 + o^2)}{o \cdot [X \cdot m \cdot (Y \cdot Z - o \cdot p) + W \cdot n \cdot (Y \cdot p + Z \cdot o)]} = 0$

4RST1AB5R8



$N_1 = 2.42854$
$N_2 = 3.15497$
$N_3 = 0.56391$
$N_4 = 1.41390$
$R = 1.87893$

Unit. $AB := 1$ Given. $N_1 := 2.42854$ $N_2 := 3.15497$ $N_3 := .56391$

$N_4 := 1.41390$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

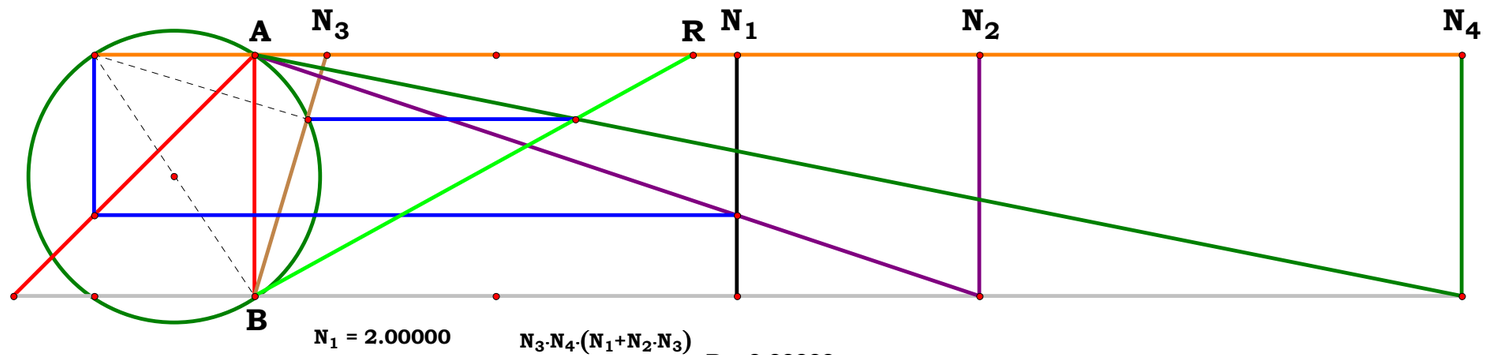
Descriptions.

$AC := \frac{N_1}{N_2}$ $CN_3 := N_3 + AC$

$BN_3 := \sqrt{N_3^2 + AB^2}$ $DN_3 := \frac{N_3 \cdot CN_3}{BN_3}$

$DE := \frac{AB \cdot (BN_3 - DN_3)}{BN_3}$ $BG := N_4 \cdot (AB - DE)$

$R := \frac{BG \cdot AB}{DE}$ $R = 1.878932$



$N_1 = 2.00000$
$N_2 = 3.00000$
$N_3 = 0.30000$
$N_4 = 5.00000$
$R = 1.81250$

$\frac{N_3 \cdot N_4 \cdot (N_1 + N_2 \cdot N_3)}{N_2 - N_1 \cdot N_3} - R = 0.00000$

Definitions.

$R - \frac{N_3 \cdot N_4 \cdot (AC + N_3)}{(1 - AC \cdot N_3)} = 0$

$R - \frac{N_3 \cdot N_4 \cdot (N_1 + N_2 \cdot N_3)}{N_2 - N_1 \cdot N_3} = 0$

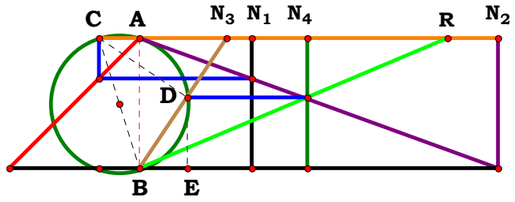
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$R - \frac{N_u^2 \cdot (B \cdot C + A \cdot N_u)}{D \cdot (A \cdot C^2 - B \cdot C \cdot N_u)} = 0$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$R - \frac{Y \cdot Z \cdot (X \cdot Y \cdot m + W \cdot n \cdot o)}{p \cdot (X \cdot m \cdot o^2 - W \cdot Y \cdot n \cdot o)} = 0$

4RST1AB5R9



$N_1 = 0.85944$
$N_2 = 2.74817$
$N_3 = 0.67045$
$N_4 = 1.28798$
$R = 2.36224$

Unit. $AB := 1$ Given. $N_1 := .85944$ $N_2 := 2.74817$ $N_3 := .67045$

$N_4 := 1.28798$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

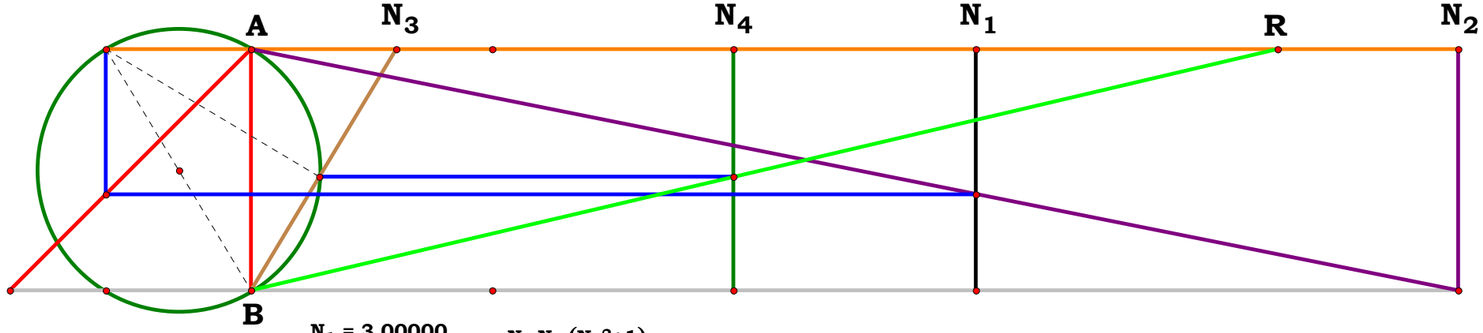
Descriptions.

$AC := \frac{N_1}{N_2}$ $CN_3 := N_3 + AC$

$BN_3 := \sqrt{N_3^2 + AB^2}$ $DN_3 := \frac{N_3 \cdot CN_3}{BN_3}$

$DE := \frac{AB \cdot (BN_3 - DN_3)}{BN_3}$ $R := \frac{N_4}{DE}$

$R = 2.36222$



$N_1 = 3.00000$
$N_2 = 5.00000$
$N_3 = 0.60000$
$N_4 = 2.00000$
$R = 4.25000$

$\frac{N_2 \cdot N_4 \cdot (N_3^2+1)}{N_2 - N_1 \cdot N_3} - R = 0.00000$

Definitions.

$R - \frac{-N_4 \cdot (N_3^2 + 1)}{AC \cdot N_3 - 1} = 0$

$R - \frac{N_2 \cdot N_4 \cdot (N_3^2 + 1)}{N_2 - N_1 \cdot N_3} = 0$

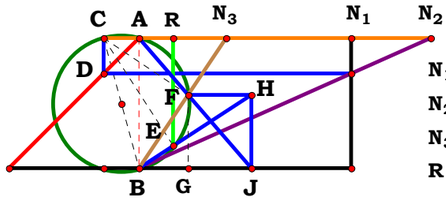
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$R - \frac{A \cdot N_u \cdot (C^2 + N_u^2)}{D \cdot [C \cdot (A \cdot C - B \cdot N_u)]} = 0$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$R - \frac{X \cdot Z \cdot m \cdot (Y^2 + o^2)}{p \cdot o \cdot (X \cdot m \cdot o - W \cdot Y \cdot n)} = 0$

4RST1AB6R0



$N_1 = 1.62462$
$N_2 = 2.23482$
$N_3 = 0.67045$
$R = 0.26541$

Unit. $AB := 1$ **Given.** $N_1 := 1.62462$ $N_2 := 2.23482$ $N_3 := .67045$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

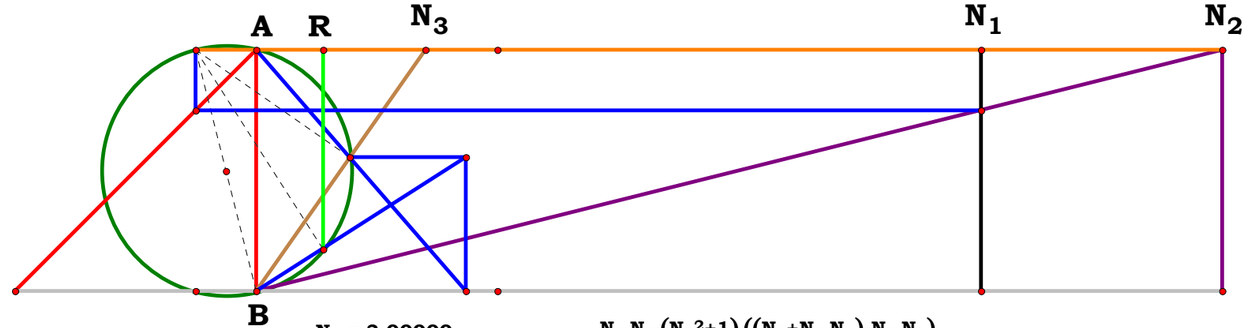
Descriptions.

$AC := \frac{N_2 - N_1}{N_2}$ $BN_3 := \sqrt{N_3^2 + AB^2}$ $CN_3 := N_3 + AC$ $FN_3 := \frac{N_3 \cdot CN_3}{BN_3}$

$BF := BN_3 - FN_3$ $FG := \frac{AB \cdot BF}{BN_3}$ $BG := \frac{N_3 \cdot BF}{BN_3}$ $GJ := \frac{BG \cdot BF}{FN_3}$ $BJ := BG + GJ$

$HJ := FG$ $AK := \frac{BJ \cdot AB}{HJ}$ $BK := \sqrt{AK^2 + AB^2}$ $CK := AK + AC$

$EK := \frac{AK \cdot CK}{BK}$ $BE := BK - EK$ $R := \frac{AK \cdot BE}{BK}$ $R = 0.265414$



$N_1 = 3.00000$
$N_2 = 4.00000$
$N_3 = 0.70000$
$R = 0.27556$

$\frac{N_2 \cdot N_3 \cdot (N_3^2+1) \cdot ((N_2+N_1 \cdot N_3)-N_2 \cdot N_3)}{(N_1^2-2 \cdot N_1 \cdot N_2 \cdot N_3-2 \cdot N_1 \cdot N_2)+N_2^2 \cdot N_3 \cdot (N_3^3+3 \cdot N_3+2)+2 \cdot N_2^2} - R = 0.00000$

Definitions.

$$R - \frac{N_3 \cdot \left(N_3^2 + 1\right) \cdot \left(1 - AC \cdot N_3\right)}{AC^2 + 2 \cdot AC \cdot N_3 + N_3^4 + 3 \cdot N_3^2 + 1} = 0$$

$$R - \frac{N_2 \cdot N_3 \cdot \left(N_3^2 + 1\right) \cdot \left(N_2 + N_1 \cdot N_3 - N_2 \cdot N_3\right)}{N_1^2 - 2 \cdot N_1 \cdot N_2 \cdot N_3 - 2 \cdot N_1 \cdot N_2 + N_2^2 \cdot N_3 \cdot \left(N_3^3 + 3 \cdot N_3 + 2\right) + 2 \cdot N_2^2} = 0$$

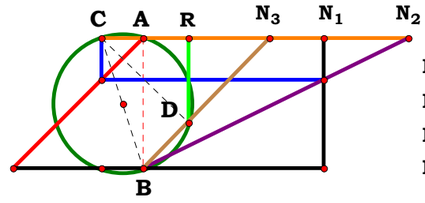
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$

$$R - \frac{A \cdot N_u \cdot \left(C^2 + N_u^2\right) \cdot \left[A \cdot C + N_u \cdot (B - A)\right]}{C^4 \cdot \left(2 \cdot A^2 - 2 \cdot A \cdot B + B^2\right) + 2 \cdot C^3 \cdot A \cdot N_u \cdot (A - B) + A^2 \cdot N_u^2 \cdot \left(3 \cdot C^2 + N_u^2\right)} = 0$$

$N_1 - \frac{X}{o} = 0$ $N_2 - \frac{Y}{p} = 0$ $N_3 - \frac{Z}{q} = 0$

$$R - \frac{Y \cdot Z \cdot o \cdot \left(Z^2 + q^2\right) \cdot (X \cdot Z \cdot p - Y \cdot Z \cdot o + Y \cdot o \cdot q)}{p^2 \cdot q^4 \cdot X^2 - 2 \cdot X \cdot Y \cdot o \cdot p \cdot q^3 \cdot (Z + q) + Y^2 \cdot o^2 \cdot \left(Z^4 + 3 \cdot Z^2 \cdot q^2 + 2 \cdot Z \cdot q^3 + 2 \cdot q^4\right)} = 0$$

4RST1AB6R1



$N_1 = 1.38247$
$N_2 = 2.03142$
$N_3 = 0.97071$
$R = 0.34480$

Unit. $AB := 1$ Given. $N_1 := 1.38247$ $N_2 := 2.03142$ $N_3 := .97071$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

$AC := \frac{N_2 - N_1}{N_2}$ $BN_3 := \sqrt{N_3^2 + AB^2}$

$CN_3 := N_3 + AC$ $DN_3 := \frac{N_3 \cdot CN_3}{BN_3}$

$BD := BN_3 - DN_3$ $R := \frac{N_3 \cdot BD}{BN_3}$

$R = 0.344798$

Definitions.

$$R - \frac{N_3 \cdot \left(1 - AC \cdot N_3\right)}{N_3^2 + 1} = 0$$

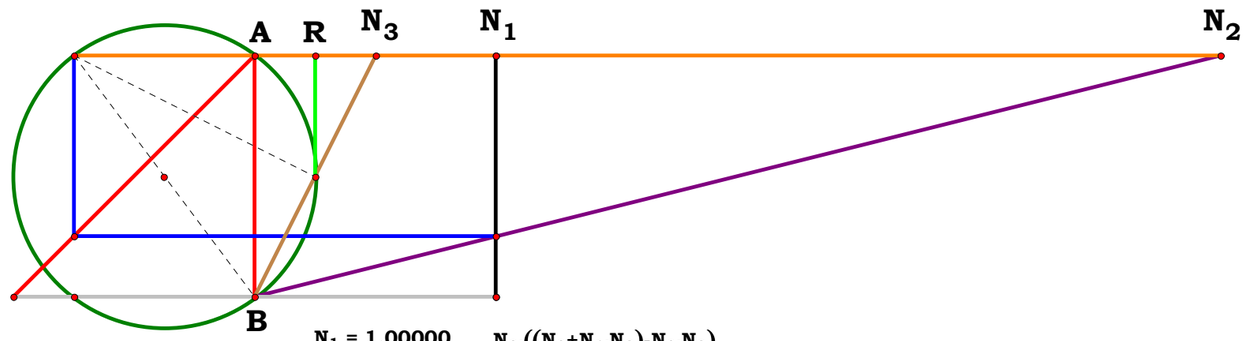
$$R - \frac{N_3 \cdot \left(N_2 + N_1 \cdot N_3 - N_2 \cdot N_3\right)}{N_2 \cdot \left(N_3^2 + 1\right)} = 0$$

$$N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0$$

$$R - \frac{N_u \cdot \left[A \cdot C + N_u \cdot (B - A)\right]}{A \cdot \left(C^2 + N_u^2\right)} = 0$$

$$N_1 - \frac{X}{o} = 0 \quad N_2 - \frac{Y}{p} = 0 \quad N_3 - \frac{Z}{q} = 0$$

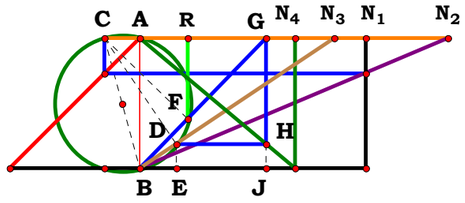
$$R - \frac{Z \cdot (X \cdot Z \cdot p - Y \cdot Z \cdot o + Y \cdot o \cdot q)}{\left[Y \cdot o \cdot \left(Z^2 + q^2\right)\right]} = 0$$



$N_1 = 1.00000$
$N_2 = 4.00000$
$N_3 = 0.50000$
$R = 0.25000$

$\frac{N_3 \cdot ((N_2 + N_1 \cdot N_3) - N_2 \cdot N_3)}{N_2 \cdot (N_3^2 + 1)} - R = 0.00000$

4RST1AB6R2



$N_1 = 1.73116$
$N_2 = 2.36074$
$N_3 = 1.49375$
$N_4 = 1.19112$
$R = 0.37056$

Unit. $AB := 1$ Given. $N_1 := 1.73116$ $N_2 := 2.36074$ $N_3 := 1.49375$ $N_4 := 1.19112$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

$AC := \frac{N_2 - N_1}{N_2}$ $BN_3 := \sqrt{N_3^2 + AB^2}$

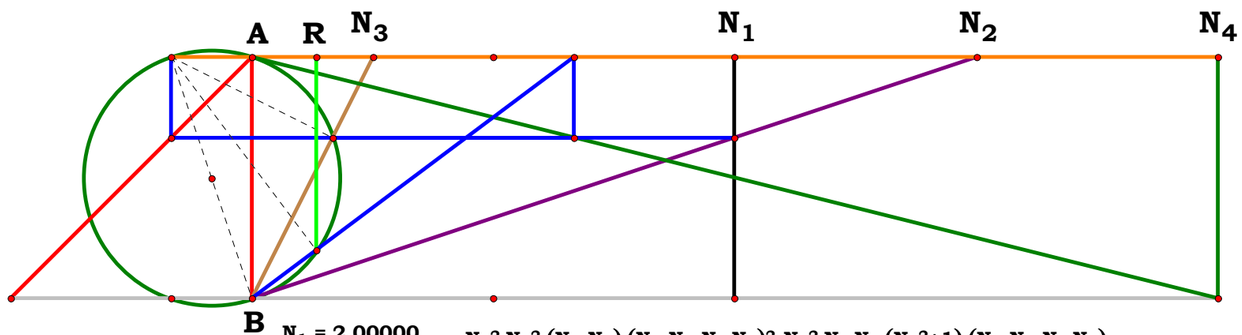
$CN_3 := N_3 + AC$ $EN_3 := \frac{N_3 \cdot CN_3}{BN_3}$

$EF := AB \cdot \left(\frac{BN_3 - EN_3}{BN_3} \right)$ $AG := N_4 \cdot (AB - EF)$

$BG := \sqrt{AG^2 + AB^2}$ $CG := AG + AC$

$FG := \frac{AG \cdot CG}{BG}$ $R := AG \cdot \left(\frac{BG - FG}{BG} \right)$

$R = 0.370564$



$N_1 = 2.00000$
$N_2 = 3.00000$
$N_3 = 0.50000$
$N_4 = 4.00000$
$R = 0.26667$

$$\frac{N_3^2 \cdot N_4^2 \cdot (N_1 - N_2) \cdot (N_1 - N_2 - N_2 \cdot N_3)^2 - N_2^2 \cdot N_3 \cdot N_4 \cdot (N_3^2 + 1) \cdot (N_1 - N_2 - N_2 \cdot N_3)}{N_2 \cdot N_3^2 \cdot N_4^2 \cdot (N_1 - N_2 - N_2 \cdot N_3)^2 + N_2^3 \cdot (N_3^2 + 1)^2} - R = 0.00000$$

Definitions.

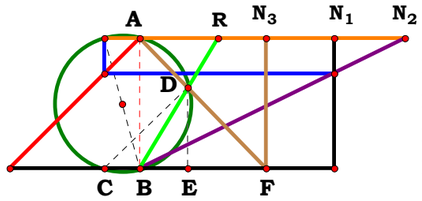
$$R - \frac{N_3 \cdot N_4 \cdot (AC + N_3) \cdot \left(N_3^2 - AC \cdot N_3^2 \cdot N_4 - AC^2 \cdot N_3 \cdot N_4 + 1 \right)}{AC^2 \cdot N_3^2 \cdot N_4^2 + 2 \cdot AC \cdot N_3^3 \cdot N_4^2 + N_3^4 \cdot N_4^2 + N_3^4 + 2 \cdot N_3^2 + 1} = 0$$

$$R - \frac{N_3^2 \cdot N_4^2 \cdot (N_1 - N_2) \cdot (N_1 - N_2 - N_2 \cdot N_3)^2 - N_2^2 \cdot N_3 \cdot N_4 \cdot (N_3^2 + 1) \cdot (N_1 - N_2 - N_2 \cdot N_3)}{N_2 \cdot N_3^2 \cdot N_4^2 \cdot (N_1 - N_2 - N_2 \cdot N_3)^2 + N_2^3 \cdot (N_3^2 + 1)^2} = 0 \qquad N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0 \quad N_4 - \frac{N_u}{D} = 0$$

$$R - \frac{N_u^2 \cdot [C \cdot (A - B) + A \cdot N_u] \cdot [A^2 \cdot (C^2 + N_u^2) \cdot D + N_u^2 \cdot (B - A) \cdot [C \cdot (A - B) + A \cdot N_u]]}{D^2 \cdot A^3 \cdot (C^2 + N_u^2)^2 + A \cdot N_u^4 \cdot (A \cdot C - B \cdot C + A \cdot N_u)^2} = 0 \qquad N_1 - \frac{W}{m} = 0 \quad N_2 - \frac{X}{n} = 0 \quad N_3 - \frac{Y}{o} = 0 \quad N_4 - \frac{Z}{p} = 0$$

$$R - \frac{Y \cdot Z \cdot (W \cdot n \cdot o - X \cdot Y \cdot m - X \cdot m \cdot o) \cdot [Z \cdot Y \cdot (W \cdot n - X \cdot m) \cdot (W \cdot n \cdot o - X \cdot Y \cdot m - X \cdot m \cdot o) - (p \cdot X^2 \cdot Y^2 \cdot m^2 + p \cdot X^2 \cdot m^2 \cdot o^2)]}{m \cdot X \cdot [Z^2 \cdot Y^2 \cdot (W \cdot n \cdot o - X \cdot Y \cdot m - X \cdot m \cdot o)^2 + X^2 \cdot m^2 \cdot p^2 \cdot (Y^2 + o^2)^2]} = 0$$

4RST1AB6R3



$N_1 = 1.48902$
$N_2 = 2.03142$
$N_3 = 0.97071$
$R = 0.59853$

Unit. $AB := 1$ Given. $N_1 := 1.48902$ $N_2 := 2.03142$ $N_3 := .97071$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

$BC := \frac{N_2 - N_1}{N_2}$ $AF := \sqrt{N_3^2 + AB^2}$

$CF := N_3 + BC$ $DF := \frac{N_3 \cdot CF}{AF}$

$BE := \frac{N_3 \cdot (AF - DF)}{AF}$ $R := \frac{AF \cdot BE}{DF}$

$R = 0.598534$

Definitions.

$$R - \left(\frac{BC^2 + 1}{BC + N_3} - BC \right) = 0$$

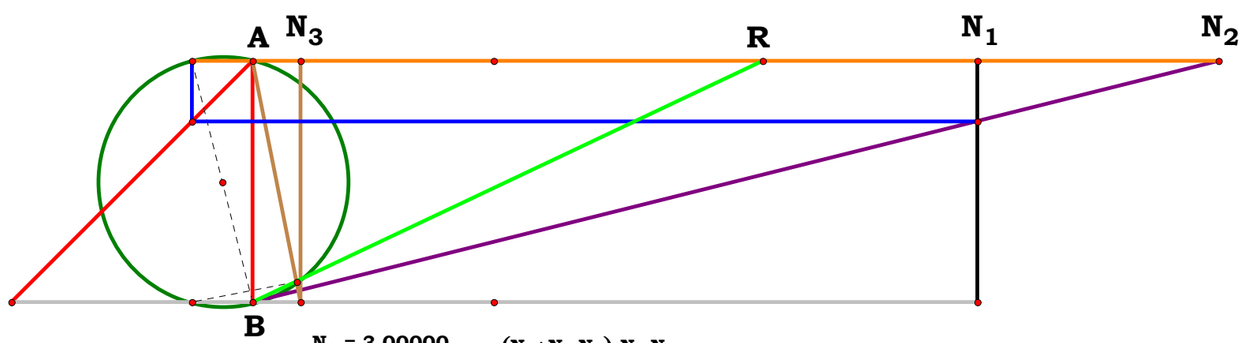
$$R - \frac{N_2 + N_1 \cdot N_3 - N_2 \cdot N_3}{N_2 - N_1 + N_2 \cdot N_3} = 0$$

$$N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0$$

$$R - \frac{A \cdot C + N_u \cdot (B - A)}{C \cdot (A - B) + A \cdot N_u} = 0$$

$$N_1 - \frac{X}{o} = 0 \quad N_2 - \frac{Y}{p} = 0 \quad N_3 - \frac{Z}{q} = 0$$

$$R - \frac{X \cdot Z \cdot p - Y \cdot Z \cdot o + Y \cdot o \cdot q}{Y \cdot Z \cdot o - X \cdot p \cdot q + Y \cdot o \cdot q} = 0$$

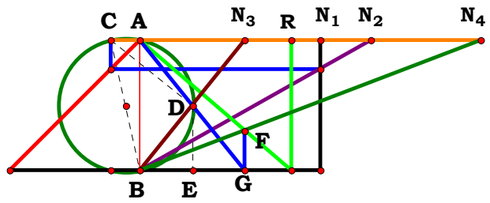


$N_1 = 3.00000$
$N_2 = 4.00000$
$N_3 = 0.20000$

$\frac{(N_2+N_1 \cdot N_3)-N_2 \cdot N_3}{(N_2-N_1)+N_2 \cdot N_3} - R = 0.00000$

$R = 2.11111$

4RST1AB6R4



$N_1 = 1.38247$
$N_2 = 1.76991$
$N_3 = 0.80606$
$N_4 = 2.61493$
$R = 1.15992$

Unit. $AB := 1$ Given. $N_1 := 1.38247$ $N_2 := 1.76991$ $N_3 := .80606$ $N_4 := 2.61493$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

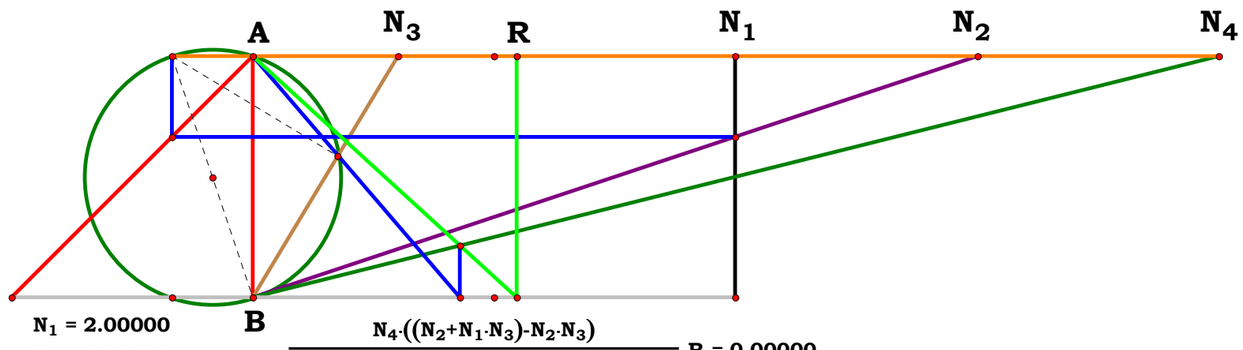
$$AC := \frac{N_2 - N_1}{N_2} \qquad CN_3 := N_3 + AC$$

$$BN_3 := \sqrt{N_3^2 + AB^2} \qquad DN_3 := \frac{N_3 \cdot CN_3}{BN_3}$$

$$BD := BN_3 - DN_3 \qquad BE := \frac{N_3 \cdot BD}{BN_3}$$

$$BG := \frac{BE \cdot BN_3}{DN_3} \qquad FG := \frac{AB \cdot BG}{N_4}$$

$$R := \frac{BG \cdot AB}{AB - FG} \qquad R = 1.159894$$



$N_1 = 2.00000$
$N_2 = 3.00000$
$N_3 = 0.60000$
$N_4 = 4.00000$
$R = 1.09091$

$$\frac{N_4 \cdot ((N_2 + N_1 \cdot N_3) - N_2 \cdot N_3)}{(N_2 \cdot N_3 - N_1 \cdot (N_3 + N_4) - N_2) + N_2 \cdot N_4 \cdot (N_3 + 1)} - R = 0.00000$$

Definitions.

$$R - \frac{N_4 - AC \cdot N_3 \cdot N_4}{AC \cdot N_3 + AC \cdot N_4 + N_3 \cdot N_4 - 1} = 0$$

$$R - \frac{N_4 \cdot (N_2 + N_1 \cdot N_3 - N_2 \cdot N_3)}{N_2 \cdot N_3 - N_1 \cdot (N_3 + N_4) - N_2 + N_2 \cdot N_4 \cdot (N_3 + 1)} = 0$$

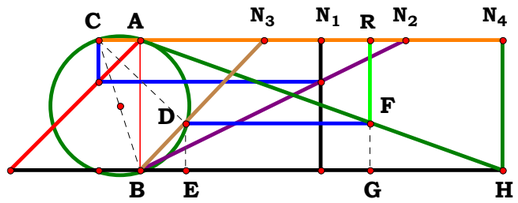
$$N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0 \quad N_4 - \frac{N_u}{D} = 0$$

$$R - \frac{N_u \cdot [A \cdot C + N_u \cdot (B - A)]}{A \cdot N_u^2 + N_u \cdot (C + D) \cdot (A - B) - A \cdot C \cdot D} = 0$$

$$N_1 - \frac{W}{m} = 0 \quad N_2 - \frac{X}{n} = 0 \quad N_3 - \frac{Y}{o} = 0 \quad N_4 - \frac{Z}{p} = 0$$

$$R - \frac{Z \cdot (W \cdot Y \cdot n - X \cdot Y \cdot m + X \cdot m \cdot o)}{X \cdot m \cdot (Y \cdot Z + Y \cdot p + Z \cdot o - o \cdot p) - W \cdot n \cdot (Y \cdot p + Z \cdot o)} = 0$$

4RST1AB6R5



$N_1 = 1.38247$
$N_2 = 2.03142$
$N_3 = 0.95134$
$N_4 = 2.77959$
$R = 1.76395$

Unit. $AB := 1$ Given. $N_1 := 1.38247$ $N_2 := 2.03142$ $N_3 := .95134$ $N_4 := 2.77959$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

$AC := \frac{N_2 - N_1}{N_2}$ $CN_3 := AC + N_3$

$BN_3 := \sqrt{N_3^2 + AB^2}$ $DN_3 := \frac{CN_3 \cdot N_3}{BN_3}$

$BD := BN_3 - DN_3$ $DE := \frac{AB \cdot BD}{BN_3}$

$R := N_4 \cdot (AB - DE)$ $R = 1.763951$

Definitions.

$$R - \frac{N_3 \cdot N_4 \cdot (AC + N_3)}{N_3^2 + 1} = 0$$

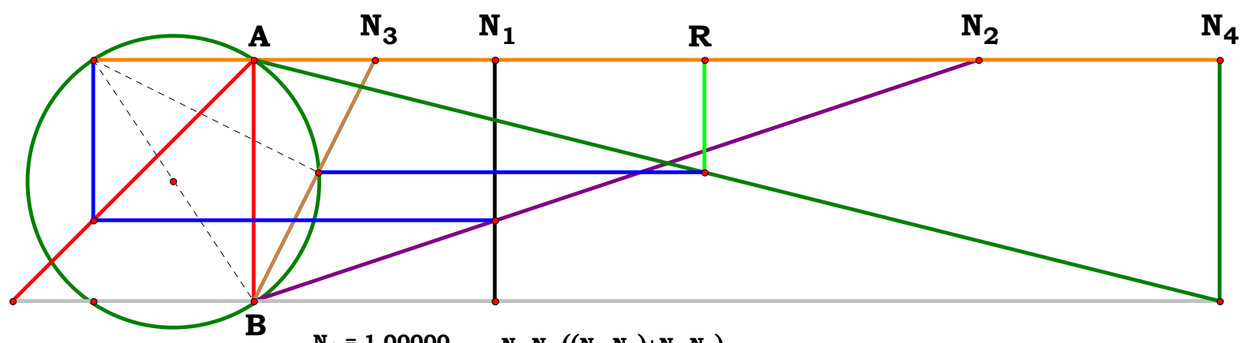
$$R - \frac{N_3 \cdot N_4 \cdot (N_2 - N_1 + N_2 \cdot N_3)}{N_2 \cdot (N_3^2 + 1)} = 0$$

$$N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0 \quad N_4 - \frac{N_u}{D} = 0$$

$$R - \frac{N_u^2 \cdot [C \cdot (A - B) + A \cdot N_u]}{A \cdot D \cdot (C^2 + N_u^2)} = 0$$

$$N_1 - \frac{W}{m} = 0 \quad N_2 - \frac{X}{n} = 0 \quad N_3 - \frac{Y}{o} = 0 \quad N_4 - \frac{Z}{p} = 0$$

$$R - \frac{Y \cdot Z \cdot (X \cdot Y \cdot m - W \cdot n \cdot o + X \cdot m \cdot o)}{p \cdot (X \cdot m \cdot Y^2 + X \cdot m \cdot o^2)} = 0$$

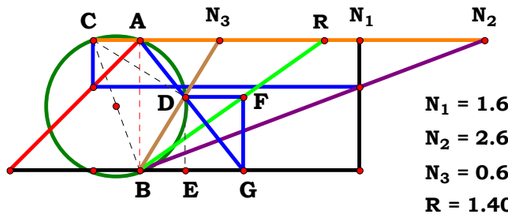


$N_1 = 1.00000$
$N_2 = 3.00000$
$N_3 = 0.50000$
$N_4 = 4.00000$

$\frac{N_3 \cdot N_4 \cdot ((N_2 - N_1) + N_2 \cdot N_3)}{N_2 \cdot (N_3^2 + 1)} - R = 0.00000$

$R = 1.86667$

4RST1AB6R6



$N_1 = 1.68273$
$N_2 = 2.64163$
$N_3 = 0.61234$
$R = 1.40973$

Unit. $AB := 1$ Given. $N_1 := 1.68273$ $N_2 := 2.64163$ $N_3 := .61234$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

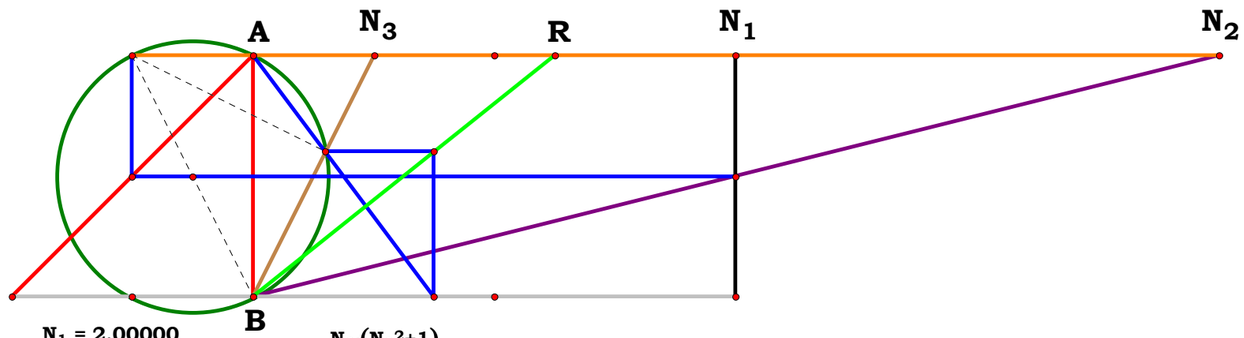
$$AC := \frac{N_2 - N_1}{N_2} \qquad CN_3 := AC + N_3$$

$$BN_3 := \sqrt{N_3^{\,2} + AB^2} \qquad DN_3 := \frac{CN_3 \cdot N_3}{BN_3}$$

$$BD := BN_3 - DN_3 \qquad DE := \frac{AB \cdot BD}{BN_3}$$

$$BE := N_3 \cdot DE \qquad BG := \frac{BE \cdot AB}{(AB - DE)}$$

$$R := \frac{BG \cdot AB}{DE} \qquad R = 1.40973$$



$N_1 = 2.00000$
$N_2 = 4.00000$
$N_3 = 0.50000$

$\frac{N_2 \cdot (N_3^2+1)}{(N_2-N_1)+N_2 \cdot N_3} - R = 0.00000$

$R = 1.25000$

Definitions.

$$R - \frac{N_3^{\,2} + 1}{AC + N_3} = 0$$

$$R - \frac{N_2 \cdot \left(N_3^{\,2} + 1\right)}{N_2 - N_1 + N_2 \cdot N_3} = 0$$

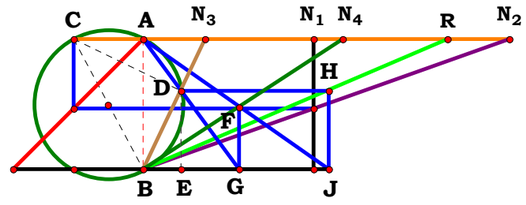
$$N_1 - \frac{N_u}{A} = 0 \qquad N_2 - \frac{N_u}{B} = 0 \qquad N_3 - \frac{N_u}{C} = 0$$

$$R - \frac{A \cdot \left(C^2 + N_u^{\,2}\right)}{C \cdot \left[C \cdot (A - B) + A \cdot N_u\right]} = 0$$

$$N_1 - \frac{X}{o} = 0 \qquad N_2 - \frac{Y}{p} = 0 \qquad N_3 - \frac{Z}{q} = 0$$

$$R - \frac{Y \cdot o \cdot \left(Z^2 + q^2\right)}{q \cdot (Y \cdot Z \cdot o - X \cdot p \cdot q + Y \cdot o \cdot q)} = 0$$

4RST1AB6R7



$N_1 = 1.30499$
$N_2 = 2.80628$
$N_3 = 0.47674$
$N_4 = 1.53013$
$R = 2.33832$

Unit. $AB := 1$ **Given.** $N_1 := 1.30499$ $N_2 := 2.80628$ $N_3 := .47674$ $N_4 := 1.53013$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

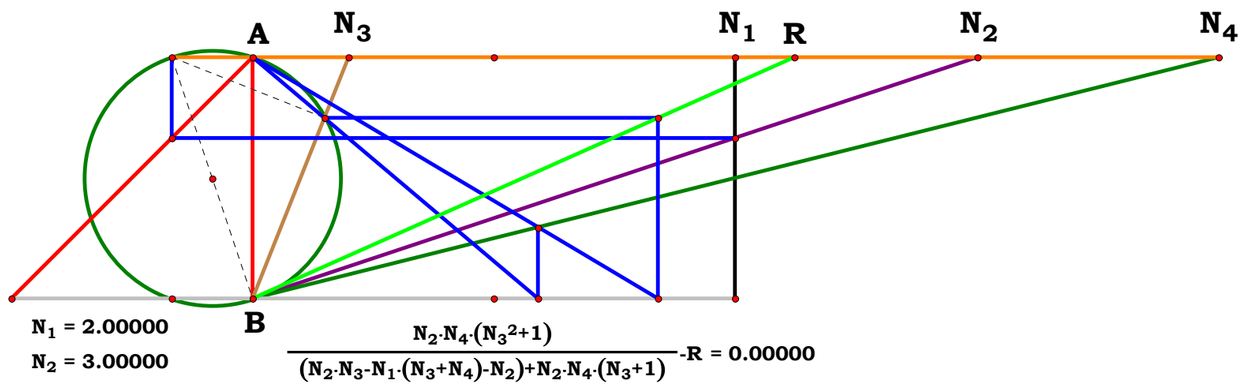
Descriptions.

$AC := \frac{N_2 - N_1}{N_2}$ $BN_3 := \sqrt{N_3^2 + AB^2}$ $CN_3 := N_3 + AC$

$DN_3 := \frac{N_3 \cdot CN_3}{BN_3}$ $BD := BN_3 - DN_3$ $BE := \frac{N_3 \cdot BD}{BN_3}$

$DE := \frac{AB \cdot BD}{BN_3}$ $BG := \frac{BE \cdot AB}{AB - DE}$ $FG := \frac{AB \cdot BG}{N_4}$

$BJ := \frac{BG}{AB - FG}$ $R := \frac{BJ \cdot AB}{DE}$ $R = 2.338314$



$N_1 = 2.00000$
$N_2 = 3.00000$
$N_3 = 0.40000$
$N_4 = 4.00000$
$R = 2.24516$

$$\frac{N_2 \cdot N_4 \cdot (N_3^2+1)}{(N_2 \cdot N_3 - N_1 \cdot (N_3+N_4) - N_2) + N_2 \cdot N_4 \cdot (N_3+1)} - R = 0.00000$$

Definitions.

$$R - \frac{N_4 \cdot \left(N_3^2 + 1\right)}{AC \cdot N_3 + AC \cdot N_4 + N_3 \cdot N_4 - 1} = 0$$

$$R - \frac{N_2 \cdot N_4 \cdot \left(N_3^2 + 1\right)}{N_2 \cdot N_3 - N_1 \cdot \left(N_3 + N_4\right) - N_2 + N_2 \cdot N_4 \cdot \left(N_3 + 1\right)} = 0$$

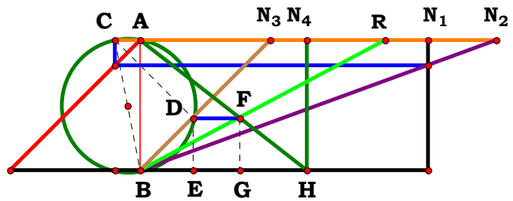
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{A \cdot N_u \cdot \left(C^2 + N_u^2\right)}{C \cdot \left[A \cdot N_u^2 + N_u \cdot (C + D) \cdot (A - B) - A \cdot C \cdot D\right]} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{X \cdot Z \cdot m \cdot \left(Y^2 + o^2\right)}{o \cdot [X \cdot m \cdot (Y \cdot Z + Y \cdot p + Z \cdot o - o \cdot p) - W \cdot n \cdot (Y \cdot p + Z \cdot o)]} = 0$$

4RST1AB6R8



$N_1 = 2.20577$
$N_2 = 2.72880$
$N_3 = 0.99977$
$N_4 = 1.27829$
$R = 1.88362$

Unit. $AB := 1$ Given. $N_1 := 2.20577$ $N_2 := 2.72880$ $N_3 := .99977$ $N_4 := 1.27829$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

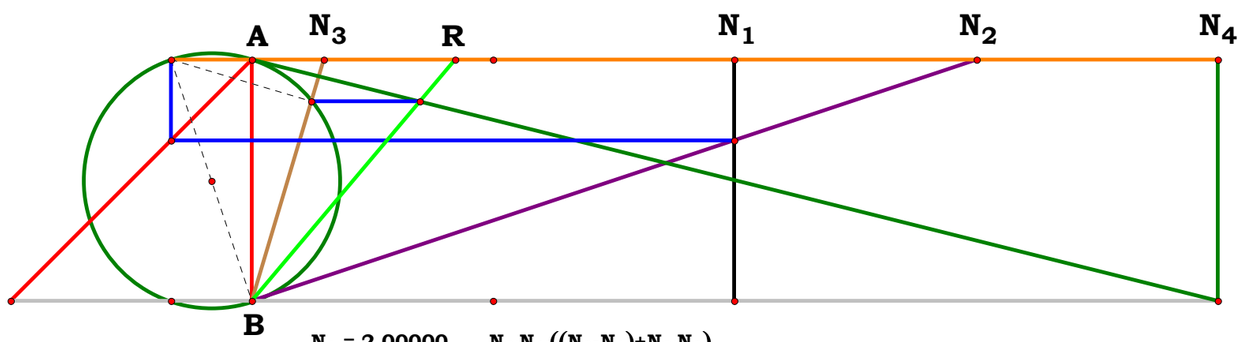
Descriptions.

$$AC := \frac{N_2 - N_1}{N_2} \qquad CN_3 := N_3 + AC$$

$$BN_3 := \sqrt{N_3^{\,2} + AB^2} \qquad DN_3 := \frac{N_3 \cdot CN_3}{BN_3}$$

$$DE := \frac{AB \cdot (BN_3 - DN_3)}{BN_3} \qquad BG := N_4 \cdot (AB - DE)$$

$$R := \frac{BG \cdot AB}{DE} \qquad R = 1.883604$$



$N_1 = 2.00000$
$N_2 = 3.00000$
$N_3 = 0.30000$
$N_4 = 4.00000$
$R = 0.84444$

$$\frac{N_3 \cdot N_4 \cdot ((N_2 - N_1) + N_2 \cdot N_3)}{(N_2 + N_1 \cdot N_3) - N_2 \cdot N_3} - R = 0.00000$$

Definitions.

$$R - \frac{N_3 \cdot N_4 \cdot (AC + N_3)}{(1 - AC \cdot N_3)} = 0$$

$$R - \frac{N_3 \cdot N_4 \cdot (N_2 - N_1 + N_2 \cdot N_3)}{N_2 + N_1 \cdot N_3 - N_2 \cdot N_3} = 0$$

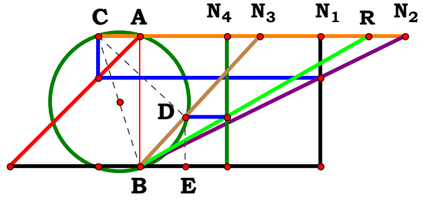
$$N_1 - \frac{N_u}{A} = 0 \qquad N_2 - \frac{N_u}{B} = 0 \qquad N_3 - \frac{N_u}{C} = 0$$

$$R - \frac{N_u^{\,2} \cdot [C \cdot (A - B) + A \cdot N_u]}{D \cdot [A \cdot C^2 + C \cdot N_u \cdot (B - A)]} = 0$$

$$N_1 - \frac{W}{m} = 0 \qquad N_2 - \frac{X}{n} = 0 \qquad N_3 - \frac{Y}{o} = 0 \qquad N_4 - \frac{Z}{p} = 0$$

$$R - \frac{Y \cdot Z \cdot (X \cdot Y \cdot m - W \cdot n \cdot o + X \cdot m \cdot o)}{p \cdot o \cdot (W \cdot Y \cdot n - X \cdot Y \cdot m + X \cdot m \cdot o)} = 0$$

4RST1AB6R9



$N_1 = 1.38247$
$N_2 = 2.03142$
$N_3 = 0.92228$
$N_4 = 0.66809$
$R = 1.75280$

Unit. $AB := 1$ Given. $N_1 := 1.38247$ $N_2 := 2.03142$ $N_3 := .92228$ $N_4 := .66809$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

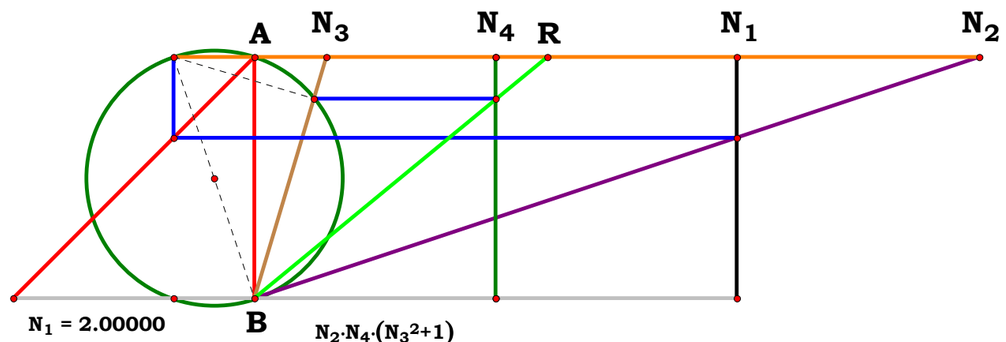
Descriptions.

$$AC := \frac{N_2 - N_1}{N_2} \qquad CN_3 := N_3 + AC$$

$$BN_3 := \sqrt{N_3^2 + AB^2} \qquad DN_3 := \frac{N_3 \cdot CN_3}{BN_3}$$

$$DE := \frac{AB \cdot (BN_3 - DN_3)}{BN_3} \qquad R := \frac{N_4}{DE}$$

$R = 1.752789$



$N_1 = 2.00000$
$N_2 = 3.00000$
$N_3 = 0.30000$
$N_4 = 1.00000$

$$\frac{N_2 \cdot N_4 \cdot (N_3^2+1)}{(N_2+N_1 \cdot N_3)-N_2 \cdot N_3} - x_R = 0.00000$$

$x_R = 1.21111$

Definitions.

$$R - \frac{-N_4 \cdot (N_3^2 + 1)}{AC \cdot N_3 - 1} = 0$$

$$R - \frac{N_2 \cdot N_4 \cdot (N_3^2 + 1)}{N_2 + N_1 \cdot N_3 - N_2 \cdot N_3} = 0$$

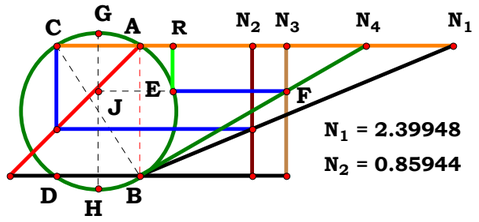
$$N_1 - \frac{N_u}{A} = 0 \qquad N_2 - \frac{N_u}{B} = 0 \qquad N_3 - \frac{N_u}{C} = 0$$

$$R - \frac{A \cdot N_u \cdot (C^2 + N_u^2)}{D \cdot [A \cdot C^2 - C \cdot N_u \cdot (A - B)]} = 0$$

$$N_1 - \frac{W}{m} = 0 \qquad N_2 - \frac{X}{n} = 0 \qquad N_3 - \frac{Y}{o} = 0 \qquad N_4 - \frac{Z}{p} = 0$$

$$R - \frac{X \cdot Z \cdot m \cdot (Y^2 + o^2)}{p \cdot o \cdot (W \cdot Y \cdot n - X \cdot Y \cdot m + X \cdot m \cdot o)} = 0$$

4RST2AB1R2



$N_3 = 1.12569$
$N_4 = 1.73353$
$N_1 = 2.39948$
$N_2 = 0.85944$
$R = 0.25413$

Unit. $AB := 1$ **Given.** $N_1 := 2.39948$ $N_2 := .85944$ $N_3 := 1.12569$ $N_4 := 1.73353$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

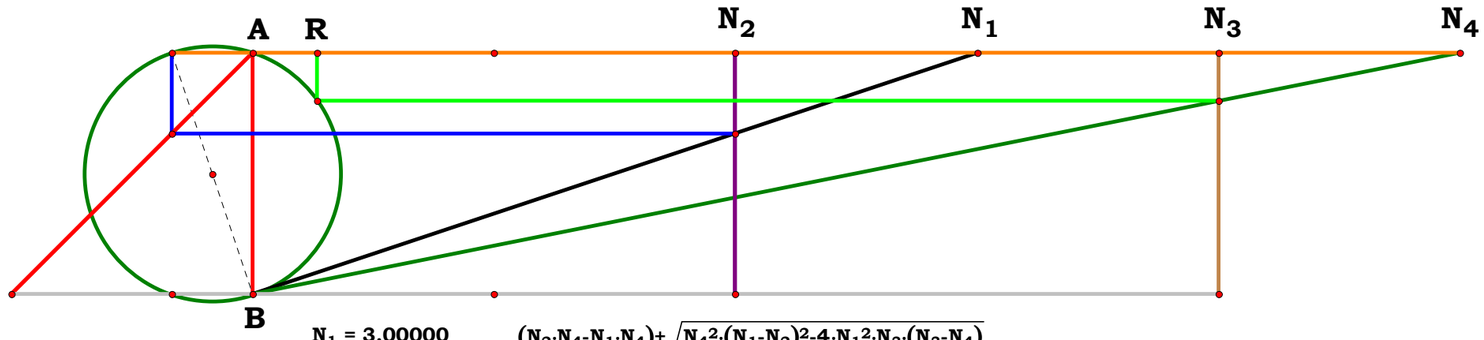
Descriptions.

$AC := \frac{N_1 - N_2}{N_1}$ $GH := \sqrt{AB^2 + AC^2}$

$GJ := \frac{N_4 - N_3}{N_4} + \frac{GH - AB}{2}$

$EJ := \sqrt{GJ \cdot (GH - GJ)}$

$R := EJ - \frac{AC}{2}$ $R = 0.254132$



$N_1 = 3.00000$
$N_2 = 2.00000$
$N_3 = 4.00000$
$N_4 = 5.00000$
$R = 0.26667$

$\frac{(N_2 \cdot N_4 - N_1 \cdot N_4) + \sqrt{N_4^2 \cdot (N_1 - N_2)^2 - 4 \cdot N_1^2 \cdot N_3 \cdot (N_3 - N_4)}}{2 \cdot N_1 \cdot N_4} - R = 0.00000$

Definitions.

$$R - \frac{\sqrt{AC^2 \cdot N_4^2 - 4 \cdot N_3^2 + 4 \cdot N_3 \cdot N_4} - AC \cdot \sqrt{N_4^2}}{2 \cdot \sqrt{N_4^2}} = 0$$

$$R - \frac{N_2 \cdot N_4 - N_1 \cdot N_4 + \sqrt{N_4^2 \cdot (N_1 - N_2)^2 - 4 \cdot N_1^2 \cdot N_3 \cdot (N_3 - N_4)}}{2 \cdot N_1 \cdot N_4} = 0$$

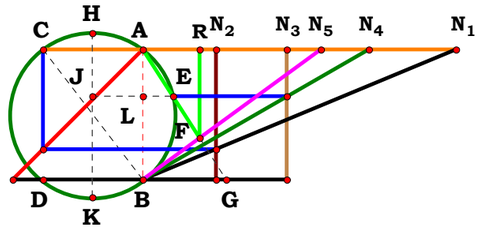
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{\sqrt{C^2 \cdot (A - B)^2 + 4 \cdot B^2 \cdot D \cdot (C - D)} + A \cdot C - B \cdot C}{2 \cdot B \cdot C} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{\sqrt{Z^2 \cdot o^2 \cdot (W \cdot n - X \cdot m)^2 + 4 \cdot W^2 \cdot Y \cdot n^2 \cdot p \cdot (Z \cdot o - Y \cdot p)} - W \cdot Z \cdot n \cdot o + X \cdot Z \cdot m \cdot o}{2 \cdot W \cdot Z \cdot n \cdot o} = 0$$

4RST2AB1R3



$N_1 = 2.39948$
$N_2 = 0.55918$
$N_3 = 1.10631$
$N_4 = 1.73353$
$N_5 = 1.36570$
$R = 0.43546$

Unit. $AB := 1$ Given. $N_1 := 2.39948$ $N_2 := .55918$ $N_3 := 1.10631$

$N_4 := 1.73352$ $N_5 := 1.36570$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$

$V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $l := \frac{V}{N_1}$ $m := \frac{W}{N_2}$ $n := \frac{X}{N_3}$ $o := \frac{Y}{N_4}$ $p := \frac{Z}{N_5}$

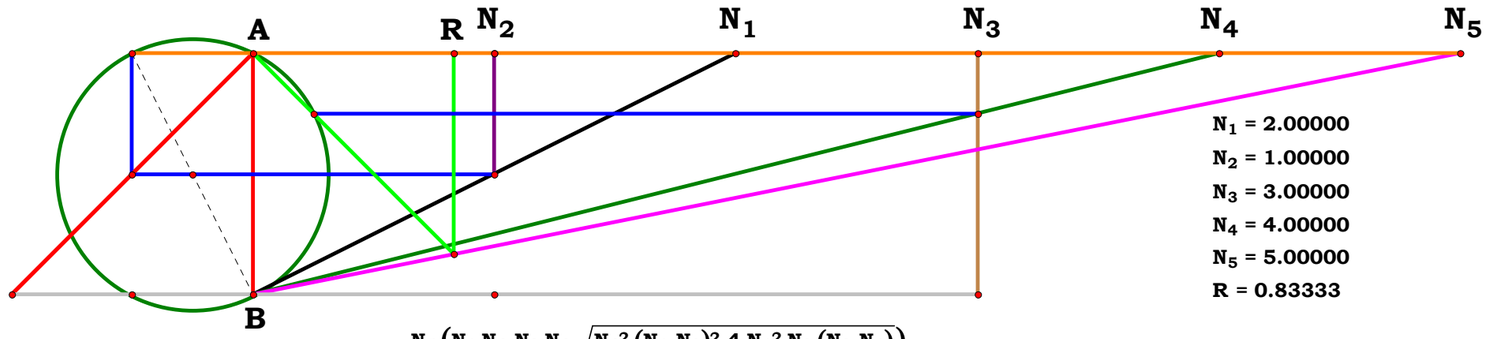
Descriptions.

$$AC := \frac{N_1 - N_2}{N_1} \qquad HK := \sqrt{AB^2 + AC^2}$$

$$AL := \frac{N_4 - N_3}{N_4} \qquad HJ := AL + \frac{HK - AB}{2}$$

$$EJ := \sqrt{HJ \cdot (HK - HJ)} \qquad BG := \frac{\left(EJ - \frac{AC}{2}\right) \cdot AB}{AL}$$

$$R := \frac{N_5 \cdot BG}{N_5 + BG} \qquad R = 0.435456$$



$N_1 = 2.00000$
$N_2 = 1.00000$
$N_3 = 3.00000$
$N_4 = 4.00000$
$N_5 = 5.00000$
$R = 0.83333$

$$\frac{N_5 \cdot (N_1 \cdot N_4 - N_2 \cdot N_4 - \sqrt{N_4^2 \cdot (N_1 - N_2)^2 - 4 \cdot N_1^2 \cdot N_3 \cdot (N_3 - N_4)})}{((N_1 \cdot N_4 - N_2 \cdot N_4) + 2 \cdot N_1 \cdot N_5 \cdot (N_3 - N_4)) - \sqrt{N_4^2 \cdot (N_1 - N_2)^2 - 4 \cdot N_1^2 \cdot N_3 \cdot (N_3 - N_4)}} - R = 0.00000$$

Definitions.

$$R - \frac{N_4 \cdot N_5 \cdot \left(AC \cdot \sqrt{N_4^2} - \sqrt{AC^2 \cdot N_4^2 - 4 \cdot N_3^2 + 4 \cdot N_3 \cdot N_4}\right)}{\sqrt{N_4^2} \cdot (AC \cdot N_4 + 2 \cdot N_3 \cdot N_5 - 2 \cdot N_4 \cdot N_5) - N_4 \cdot \sqrt{AC^2 \cdot N_4^2 - 4 \cdot N_3^2 + 4 \cdot N_3 \cdot N_4}} = 0$$

$$R - \frac{N_5 \cdot \left[N_1 \cdot N_4 - N_2 \cdot N_4 - \sqrt{N_4^2 \cdot (N_1 - N_2)^2 - 4 \cdot N_1^2 \cdot N_3 \cdot (N_3 - N_4)}\right]}{N_1 \cdot N_4 - N_2 \cdot N_4 - \sqrt{N_4^2 \cdot (N_1 - N_2)^2 - 4 \cdot N_1^2 \cdot N_3 \cdot (N_3 - N_4)} + 2 \cdot N_1 \cdot N_5 \cdot (N_3 - N_4)} = 0$$

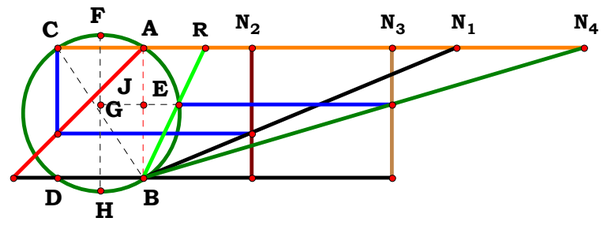
$$N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0 \quad N_4 - \frac{N_u}{D} = 0 \quad N_5 - \frac{N_u}{E} = 0$$

$$R - \frac{N_u \cdot \left[\sqrt{C^2 \cdot (A - B)^2 + 4 \cdot B^2 \cdot D \cdot (C - D)} + C \cdot (A - B)\right]}{E \cdot \sqrt{C^2 \cdot (A - B)^2 + 4 \cdot B^2 \cdot D \cdot (C - D)} + C \cdot E \cdot (A - B) + 2 \cdot B \cdot N_u \cdot (C - D)} = 0$$

$$N_1 - \frac{V}{l} = 0 \quad N_2 - \frac{W}{m} = 0 \quad N_3 - \frac{X}{n} = 0 \quad N_4 - \frac{Y}{o} = 0 \quad N_5 - \frac{Z}{p} = 0$$

$$R - \frac{Z \cdot \left[V \cdot Y \cdot m \cdot n - \sqrt{Y^2 \cdot n^2 \cdot (V \cdot m - W \cdot l)^2 + 4 \cdot V^2 \cdot X \cdot m^2 \cdot o \cdot (Y \cdot n - X \cdot o)} - W \cdot Y \cdot l \cdot n\right]}{2 \cdot V \cdot X \cdot Z \cdot m \cdot o - p \cdot \sqrt{Y^2 \cdot n^2 \cdot (V \cdot m - W \cdot l)^2 + 4 \cdot V^2 \cdot X \cdot m^2 \cdot o \cdot (Y \cdot n - X \cdot o)} - Y \cdot n \cdot (2 \cdot V \cdot Z \cdot m - V \cdot m \cdot p + W \cdot l \cdot p)} = 0$$

4RST2AB1R4



$N_1 = 2.39948$
$N_2 = 0.83038$
$N_3 = 1.91023$
$N_4 = 3.38011$
$R = 0.47225$

Unit. $AB := 1$ Given. $N_1 := 2.39948$ $N_2 := .83038$ $N_3 := 1.91023$ $N_4 := 3.38011$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

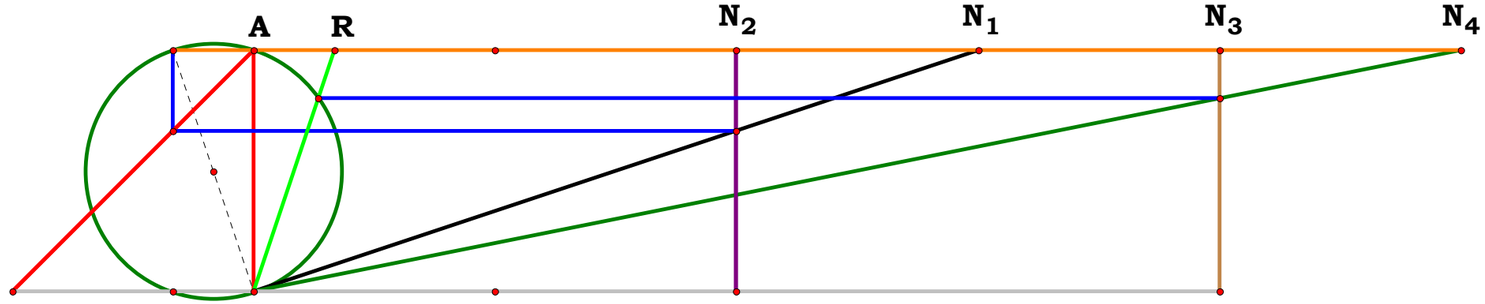
Descriptions.

$$AC := \frac{N_1 - N_2}{N_1} \qquad AE := \frac{N_4 - N_3}{N_4} \qquad BE := AB - AE$$

$$FH := \sqrt{AB^2 + AC^2} \qquad FG := AE + \frac{FH - AB}{2}$$

$$EG := \sqrt{FG \cdot (FH - FG)} \qquad EJ := EG - \frac{AC}{2} \qquad R := \frac{EJ \cdot AB}{BE}$$

$R = 0.472254$



Definitions.

$$R - \frac{N_4 \cdot \sqrt{AC^2 \cdot N_4^2 - 4 \cdot N_3^2 + 4 \cdot N_3 \cdot N_4} - AC \cdot N_4 \cdot \sqrt{N_4^2}}{2 \cdot N_3 \cdot \sqrt{N_4^2}} = 0$$

$$R - \frac{N_2 \cdot N_4 - N_1 \cdot N_4 + \sqrt{N_4^2 \cdot (N_1 - N_2)^2 - 4 \cdot N_1^2 \cdot N_3 \cdot (N_3 - N_4)}}{2 \cdot N_1 \cdot N_3} = 0$$

$$N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0 \quad N_4 - \frac{N_u}{D} = 0$$

$$R - \frac{\sqrt{C^2 \cdot (A - B)^2 + 4 \cdot B^2 \cdot D \cdot (C - D)} + C \cdot (A - B)}{2 \cdot B \cdot D} = 0$$

$$N_1 - \frac{W}{m} = 0 \quad N_2 - \frac{X}{n} = 0 \quad N_3 - \frac{Y}{o} = 0 \quad N_4 - \frac{Z}{p} = 0$$

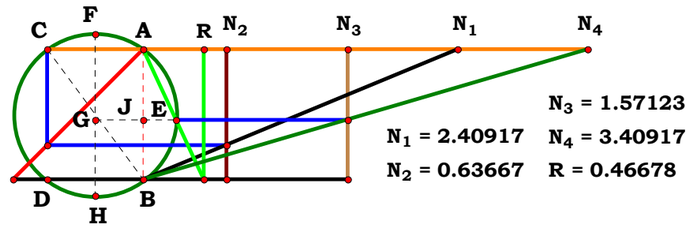
$$R - \frac{\sqrt{W^2 \cdot n^2 \cdot (4 \cdot Y \cdot Z \cdot o \cdot p - 4 \cdot Y^2 \cdot p^2 + Z^2 \cdot o^2) + X \cdot Z^2 \cdot m \cdot o^2 \cdot (X \cdot m - 2 \cdot W \cdot n)} - Z \cdot o \cdot (W \cdot n - X \cdot m)}{2 \cdot W \cdot Y \cdot n \cdot p} = 0$$

B

$N_1 = 3.00000$
$N_2 = 2.00000$
$N_3 = 4.00000$
$N_4 = 5.00000$
$R = 0.33333$

$$\frac{(N_2 \cdot N_4 - N_1 \cdot N_4) + \sqrt{N_4^2 \cdot (N_1 - N_2)^2 - 4 \cdot N_1^2 \cdot N_3 \cdot (N_3 - N_4)}}{2 \cdot N_1 \cdot N_3} - R = 0.00000$$

4RST2AB1R5



$N_3 = 1.57123$
$N_1 = 2.40917$ $N_4 = 3.40917$
$N_2 = 0.63667$ $R = 0.46678$

Unit. $AB := 1$ **Given.** $N_1 := 2.40917$ $N_2 := .63667$ $N_3 := 1.57123$ $N_4 := 3.40917$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

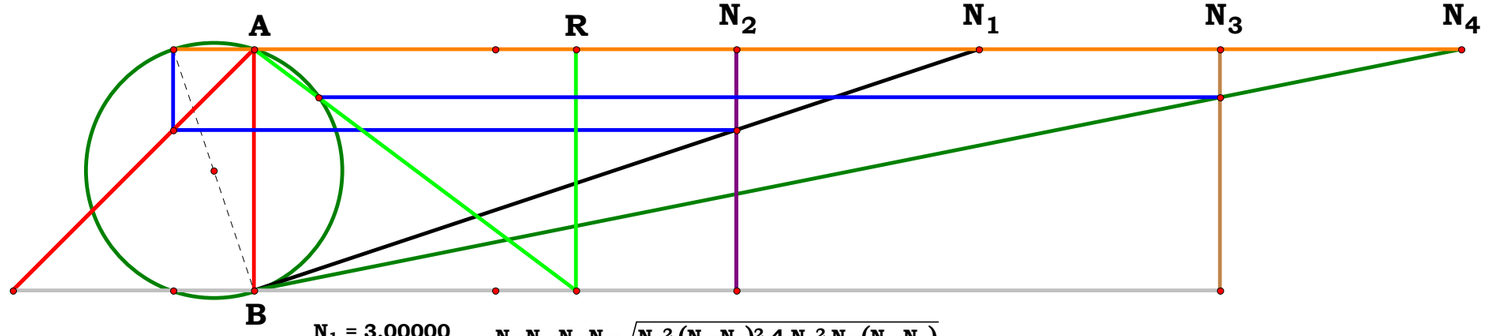
Descriptions.

$AC := \frac{N_1 - N_2}{N_1}$ $AJ := \frac{N_4 - N_3}{N_4}$

$FH := \sqrt{AB^2 + AC^2}$ $FG := AJ + \frac{FH - AB}{2}$

$EG := \sqrt{FG \cdot (FH - FG)}$ $EJ := EG - \frac{AC}{2}$

$R := \frac{EJ \cdot AB}{AJ}$ $R = 0.466776$



$N_1 = 3.00000$
$N_2 = 2.00000$
$N_3 = 4.00000$
$N_4 = 5.00000$
$R = 1.33333$

$\frac{N_1 \cdot N_4 - N_2 \cdot N_4 - \sqrt{N_4^2 \cdot (N_1 - N_2)^2 - 4 \cdot N_1^2 \cdot N_3 \cdot (N_3 - N_4)}}{2 \cdot N_1 \cdot (N_3 - N_4)} - R = 0.00000$

Definitions.

$$R - \frac{N_4 \cdot \left(AC \cdot \sqrt{N_4^2} - \sqrt{AC^2 \cdot N_4^2 - 4 \cdot N_3^2 + 4 \cdot N_3 \cdot N_4}\right)}{2 \cdot (N_3 - N_4) \cdot \sqrt{N_4^2}} = 0$$

$$R - \frac{N_1 \cdot N_4 - N_2 \cdot N_4 - \sqrt{N_4^2 \cdot (N_1 - N_2)^2 - 4 \cdot N_1^2 \cdot N_3 \cdot (N_3 - N_4)}}{2 \cdot N_1 \cdot (N_3 - N_4)} = 0$$

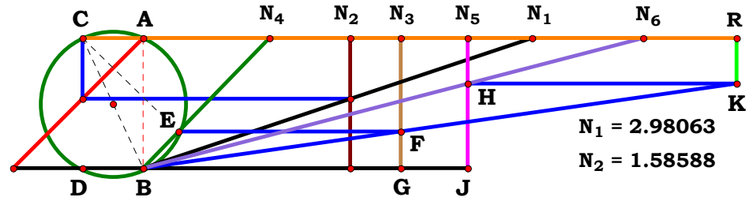
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{\sqrt{C^2 \cdot (A - B)^2 + 4 \cdot B^2 \cdot D \cdot (C - D)} + C \cdot (A - B)}{2 \cdot B \cdot (C - D)} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{\sqrt{Z^2 \cdot o^2 \cdot (W \cdot n - X \cdot m)^2 + 4 \cdot W^2 \cdot Y \cdot n^2 \cdot p \cdot (Z \cdot o - Y \cdot p)} - Z \cdot o \cdot (W \cdot n - X \cdot m)}{2 \cdot W \cdot n \cdot (Z \cdot o - Y \cdot p)} = 0$$

4RST2AB1R6



$N_3 = 1.97804$
$N_4 = 0.96835$
$N_5 = 2.48925$
$N_6 = 3.83557$
$R = 4.54856$

$N_1 = 2.98063$
$N_2 = 1.58588$

Unit. $AB := 1$ Given. $N_1 := 2.98063$ $N_2 := 1.58588$ $N_3 := 1.97804$

$N_4 := .96835$ $N_5 := 2.48925$ $N_6 := 3.83557$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $F := \frac{N_u}{N_6}$

Descriptions.

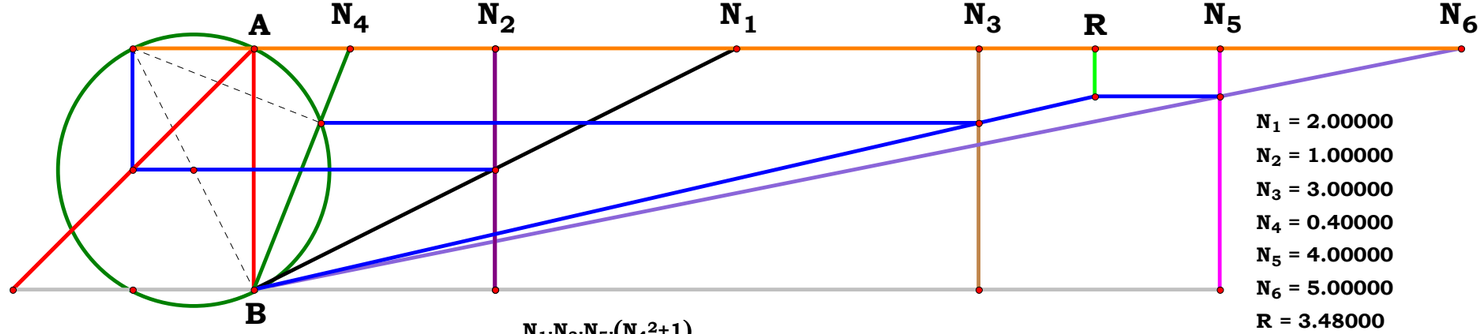
$U := 18$ $V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $k := \frac{U}{N_1}$ $l := \frac{V}{N_2}$ $m := \frac{W}{N_3}$ $n := \frac{X}{N_4}$ $o := \frac{Y}{N_5}$ $p := \frac{Z}{N_6}$

$AC := \frac{N_1 - N_2}{N_1}$ $HN_5 := \frac{N_6 - N_5}{N_6}$ $HJ := AB - HN_5$

$BN_4 := \sqrt{N_4^2 + AB^2}$ $CN_4 := N_4 + AC$

$EN_4 := \frac{N_4 \cdot CN_4}{BN_4}$ $BE := BN_4 - EN_4$

$FG := \frac{AB \cdot BE}{BN_4}$ $R := \frac{N_3 \cdot HJ}{FG}$ $R = 4.548568$



$N_1 = 2.00000$
$N_2 = 1.00000$
$N_3 = 3.00000$
$N_4 = 0.40000$
$N_5 = 4.00000$
$N_6 = 5.00000$
$R = 3.48000$

$\frac{N_1 \cdot N_3 \cdot N_5 \cdot (N_4^2+1)}{N_6 \cdot ((N_1 - N_1 \cdot N_4) + N_2 \cdot N_4)} - R = 0.00000$

Definitions.

$$R - \frac{N_3 \cdot N_5 \cdot \left(N_4^2 + 1\right)}{N_6 - AC \cdot N_4 \cdot N_6} = 0$$

$$R - \frac{N_1 \cdot N_3 \cdot N_5 \cdot \left(N_4^2 + 1\right)}{N_6 \cdot \left(N_1 - N_1 \cdot N_4 + N_2 \cdot N_4\right)} = 0$$

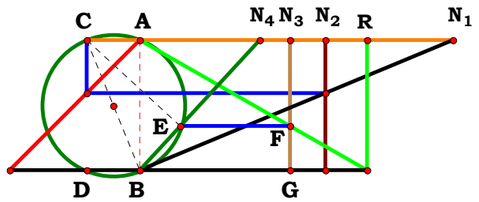
$$N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0 \quad N_4 - \frac{N_u}{D} = 0 \quad N_5 - \frac{N_u}{E} = 0 \quad N_6 - \frac{N_u}{F} = 0$$

$$R - \frac{B \cdot F \cdot N_u \cdot \left(D^2 + N_u^2\right)}{C \cdot D \cdot E \cdot \left(B \cdot D + A \cdot N_u - B \cdot N_u\right)} = 0$$

$$N_1 - \frac{U}{k} = 0 \quad N_2 - \frac{V}{l} = 0 \quad N_3 - \frac{W}{m} = 0 \quad N_4 - \frac{X}{n} = 0 \quad N_5 - \frac{Y}{o} = 0 \quad N_6 - \frac{Z}{p} = 0$$

$$R - \frac{U \cdot W \cdot Y \cdot l \cdot p \cdot \left(X^2 + n^2\right)}{U \cdot Z \cdot l \cdot m \cdot n \cdot o \cdot (n - X) + V \cdot X \cdot Z \cdot k \cdot m \cdot n \cdot o} = 0$$

4RST2AB1R7



$N_1 = 2.39948$
$N_2 = 1.42122$
$N_3 = 1.15474$
$N_4 = 0.91992$
$R = 1.74563$

Unit. $AB := 1$ Given. $N_1 := 2.39948$ $N_2 := 1.42122$ $N_3 := 1.15474$ $N_4 := .91992$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

$$AC := \frac{N_1 - N_2}{N_1} \qquad CN_4 := N_4 + AC$$

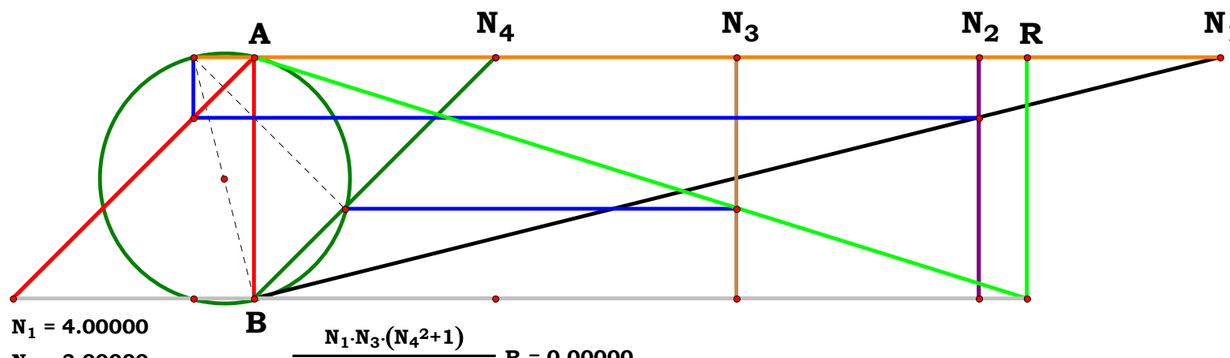
$$BN_4 := \sqrt{N_4^2 + AB^2} \qquad EN_4 := \frac{N_4 \cdot CN_4}{BN_4}$$

$$FN_3 := \frac{AB \cdot EN_4}{BN_4} \qquad R := \frac{N_3 \cdot AB}{FN_3}$$

$R = 1.745632$

Definitions.

$$R - \frac{N_3 \cdot \left(N_4^2 + 1\right)}{N_4 \cdot \left(AC + N_4\right)} = 0$$



$N_1 = 4.00000$
$N_2 = 3.00000$
$N_3 = 2.00000$
$N_4 = 1.00000$
$R = 3.20000$

$$\frac{N_1 \cdot N_3 \cdot (N_4^2+1)}{N_4 \cdot ((N_1-N_2)+N_1 \cdot N_4)} - R = 0.00000$$

$$R - \frac{N_1 \cdot N_3 \cdot \left(N_4^2 + 1\right)}{N_4 \cdot \left(N_1 - N_2 + N_1 \cdot N_4\right)} = 0$$

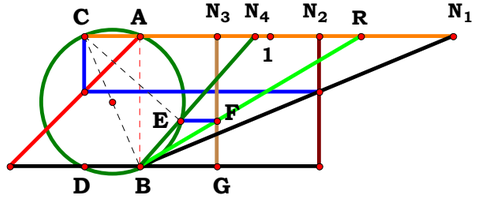
$$N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0 \quad N_4 - \frac{N_u}{D} = 0$$

$$R - \frac{B \cdot \left(D^2 + N_u^2\right)}{C \cdot D \cdot (B - A) + B \cdot C \cdot N_u} = 0$$

$$N_1 - \frac{W}{m} = 0 \quad N_2 - \frac{X}{n} = 0 \quad N_3 - \frac{Y}{o} = 0 \quad N_4 - \frac{Z}{p} = 0$$

$$R - \frac{W \cdot Y \cdot n \cdot \left(Z^2 + p^2\right)}{W \cdot Z \cdot n \cdot o \cdot (Z + p) - X \cdot Z \cdot m \cdot o \cdot p} = 0$$

4RST2AB1R8



$N_1 = 2.39948$
$N_2 = 1.37279$
$N_3 = 0.59297$
$N_4 = 0.88118$
$R = 1.69095$

Unit. $AB := 1$ Given. $N_1 := 2.39948$ $N_2 := 1.37279$ $N_3 := .59297$ $N_4 := .88118$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

$AC := \frac{N_1 - N_2}{N_1}$ $CN_4 := N_4 + AC$

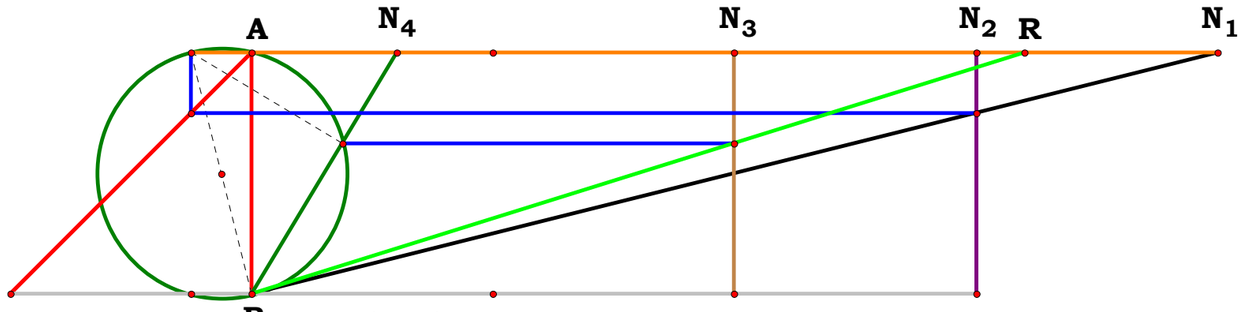
$BN_4 := \sqrt{N_4^2 + AB^2}$ $EN_4 := \frac{N_4 \cdot CN_4}{BN_4}$

$BE := BN_4 - EN_4$ $R := \frac{N_3 \cdot BN_4}{BE}$

$R = 1.690955$

Definitions.

$$R - \frac{N_3 \cdot \left(N_4^2 + 1\right)}{1 - AC \cdot N_4} = 0$$



$N_1 = 4.00000$
$N_2 = 3.00000$
$N_3 = 2.00000$
$N_4 = 0.60000$
$R = 3.20000$

$\frac{N_1 \cdot N_3 \cdot (N_4^2+1)}{(N_1 - N_1 \cdot N_4) + N_2 \cdot N_4} - R = 0.00000$

$$R - \frac{N_1 \cdot N_3 \cdot \left(N_4^2 + 1\right)}{N_1 - N_1 \cdot N_4 + N_2 \cdot N_4} = 0$$

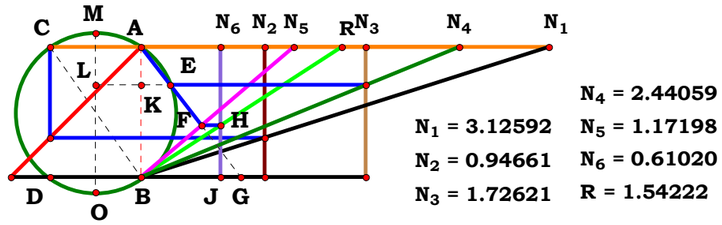
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{B \cdot N_u \cdot \left(D^2 + N_u^2\right)}{B \cdot C \cdot D^2 + C \cdot D \cdot N_u \cdot (A - B)} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{W \cdot Y \cdot n \cdot \left(Z^2 + p^2\right)}{W \cdot n \cdot o \cdot p \cdot (p - Z) + X \cdot Z \cdot m \cdot o \cdot p} = 0$$

4RST2AB1R9



$N_1 = 3.12592$ $N_2 = 0.94661$ $N_3 = 1.72621$ $N_4 = 2.44059$ $N_5 = 1.17198$ $N_6 = 0.61020$ $R = 1.54222$

Unit. $AB := 1$ **Given.** $N_1 := 3.12592$ $N_2 := .94661$ $N_3 := 1.72621$ $N_4 := 2.44059$ $N_5 := 1.17198$ $N_6 := .61020$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $F := \frac{N_u}{N_6}$

$U := 18$ $V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$k := \frac{U}{N_1}$ $l := \frac{V}{N_2}$ $m := \frac{W}{N_3}$ $n := \frac{X}{N_4}$ $o := \frac{Y}{N_5}$ $p := \frac{Z}{N_6}$

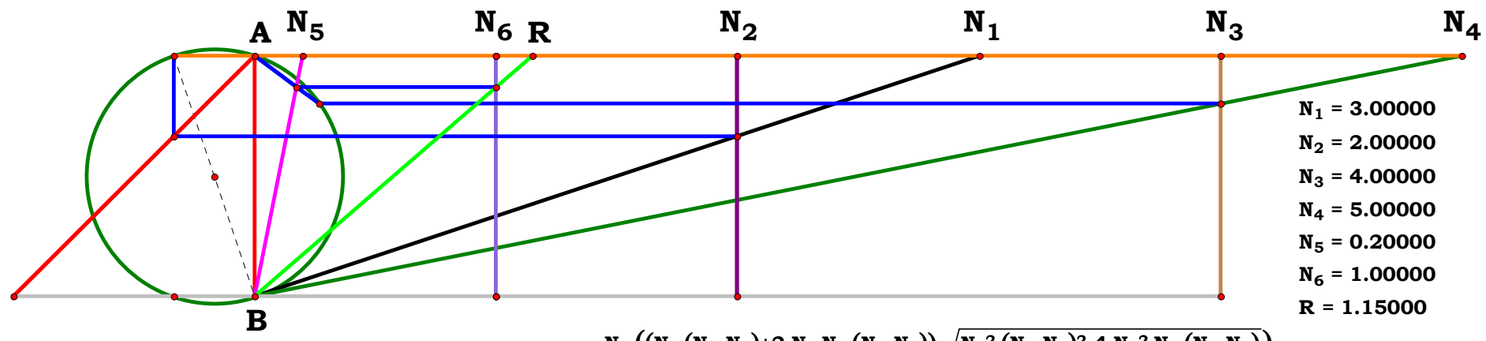
Descriptions.

$AC := \frac{N_1 - N_2}{N_1}$ $AK := \frac{N_4 - N_3}{N_4}$ $MO := \sqrt{AB^2 + AC^2}$

$ML := AK + \frac{MO - AB}{2}$ $EL := \sqrt{ML \cdot (MO - ML)}$

$EK := EL - \frac{AC}{2}$ $BG := \frac{EK \cdot AB}{AK}$ $HJ := \frac{BG}{BG + N_5}$

$R := \frac{N_6}{HJ}$ $R = 1.542204$



$N_1 = 3.00000$ $N_2 = 2.00000$ $N_3 = 4.00000$ $N_4 = 5.00000$ $N_5 = 0.20000$ $N_6 = 1.00000$ $R = 1.15000$

$\frac{N_6 \cdot ((N_4 \cdot (N_1 - N_2) + 2 \cdot N_1 \cdot N_5 \cdot (N_3 - N_4)) - \sqrt{N_4^2 \cdot (N_1 - N_2)^2 - 4 \cdot N_1^2 \cdot N_3 \cdot (N_3 - N_4)})}{N_4 \cdot (N_1 - N_2) - \sqrt{N_4^2 \cdot (N_1 - N_2)^2 - 4 \cdot N_1^2 \cdot N_3 \cdot (N_3 - N_4)}} - R = 0.00000$

Definitions.

$$R - \frac{N_6 \cdot \left[\sqrt{N_4^2} \cdot (AC \cdot N_4 + 2 \cdot N_3 \cdot N_5 - 2 \cdot N_4 \cdot N_5) - N_4 \cdot \sqrt{AC^2 \cdot N_4^2 - 4 \cdot N_3^2 + 4 \cdot N_3 \cdot N_4}\right]}{N_4 \cdot \left(AC \cdot \sqrt{N_4^2} - \sqrt{AC^2 \cdot N_4^2 - 4 \cdot N_3^2 + 4 \cdot N_3 \cdot N_4}\right)} = 0$$

$$R - \frac{N_6 \cdot \left[N_4 \cdot (N_1 - N_2) + 2 \cdot N_1 \cdot N_5 \cdot (N_3 - N_4) - \sqrt{N_4^2 \cdot (N_1 - N_2)^2 - 4 \cdot N_1^2 \cdot N_3 \cdot (N_3 - N_4)}\right]}{N_4 \cdot (N_1 - N_2) - \sqrt{N_4^2 \cdot (N_1 - N_2)^2 - 4 \cdot N_1^2 \cdot N_3 \cdot (N_3 - N_4)}} = 0$$

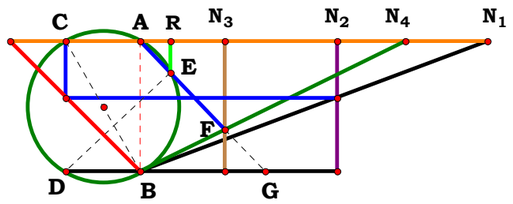
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$ $N_6 - \frac{N_u}{F} = 0$

$$R - \frac{N_u \cdot \left[E \cdot \sqrt{C^2 \cdot (A - B)^2 + 4 \cdot B^2 \cdot D \cdot (C - D)} + C \cdot E \cdot (A - B) + 2 \cdot B \cdot N_u \cdot (C - D)\right]}{E \cdot F \cdot \left[\sqrt{C^2 \cdot (A - B)^2 + 4 \cdot B^2 \cdot D \cdot (C - D)} + C \cdot (A - B)\right]} = 0$$

$N_1 - \frac{U}{k} = 0$ $N_2 - \frac{V}{l} = 0$ $N_3 - \frac{W}{m} = 0$ $N_4 - \frac{X}{n} = 0$ $N_5 - \frac{Y}{o} = 0$ $N_6 - \frac{Z}{p} = 0$

$$R - \frac{Z \cdot \left[o \cdot \sqrt{X^2 \cdot m^2 \cdot (U \cdot l - V \cdot k)^2 + 4 \cdot U^2 \cdot W \cdot l^2 \cdot n \cdot (X \cdot m - W \cdot n)} - 2 \cdot U \cdot Y \cdot l \cdot (W \cdot n - X \cdot m) - X \cdot m \cdot o \cdot (U \cdot l - V \cdot k)\right]}{o \cdot p \cdot \left[\sqrt{X^2 \cdot m^2 \cdot (U \cdot l - V \cdot k)^2 + 4 \cdot U^2 \cdot W \cdot l^2 \cdot n \cdot (X \cdot m - W \cdot n)} - X \cdot m \cdot (U \cdot l - V \cdot k)\right]} = 0$$

4RST2AB2R0



$N_1 = 2.66100$
$N_2 = 1.50839$
$N_3 = 0.65108$
$N_4 = 2.03379$
$R = 0.22836$

Unit. $AB := 1$ **Given.** $N_1 := 2.66100$ $N_2 := 1.50839$ $N_3 := .65108$ $N_4 := 2.03379$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

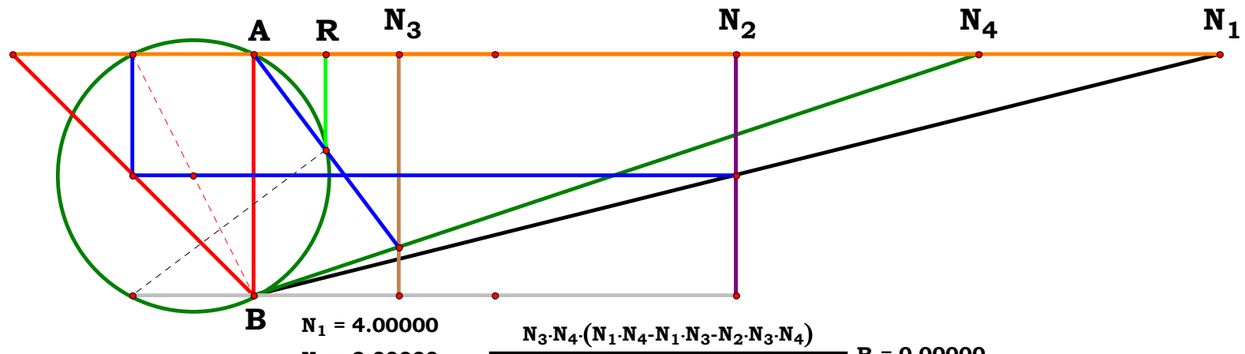
Descriptions.

$AC := \frac{N_2}{N_1}$ $FN_3 := \frac{N_4 - N_3}{N_4}$ $AF := \sqrt{N_3^2 + FN_3^2}$

$AG := \frac{AF \cdot AB}{FN_3}$ $BG := \frac{N_3 \cdot AB}{FN_3}$ $DG := BG + AC$

$EG := \frac{N_3 \cdot DG}{AF}$ $AE := AG - EG$

$R := \frac{N_3 \cdot AE}{AF}$ $R = 0.228362$



$N_1 = 4.00000$
$N_2 = 2.00000$
$N_3 = 0.60000$
$N_4 = 3.00000$
$R = 0.30000$

$\frac{N_3 \cdot N_4 \cdot (N_1 \cdot N_4 - N_1 \cdot N_3 - N_2 \cdot N_3 \cdot N_4)}{N_1 \cdot (((N_3^2 \cdot N_4^2 + N_3^2) - 2 \cdot N_3 \cdot N_4) + N_4^2)} - R = 0.00000$

Definitions.

$$R - \frac{N_3 \cdot N_4 \cdot (N_4 - N_3 - AC \cdot N_3 \cdot N_4)}{N_3^2 \cdot N_4^2 + N_3^2 - 2 \cdot N_3 \cdot N_4 + N_4^2} = 0$$

$$R - \frac{N_3 \cdot N_4 \cdot (N_1 \cdot N_4 - N_1 \cdot N_3 - N_2 \cdot N_3 \cdot N_4)}{N_1 \cdot (N_3^2 \cdot N_4^2 + N_3^2 - 2 \cdot N_3 \cdot N_4 + N_4^2)} = 0$$

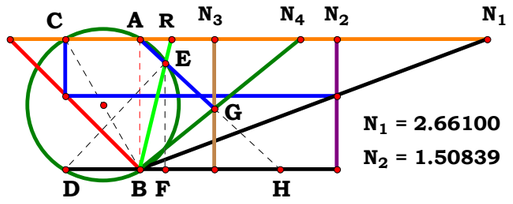
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{N_u \cdot [B \cdot (C - D) - A \cdot N_u]}{B \cdot [(C - D)^2 + N_u^2]} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{Y \cdot Z \cdot (W \cdot Z \cdot n \cdot o - W \cdot Y \cdot n \cdot p - X \cdot Y \cdot Z \cdot m)}{W \cdot n \cdot (Y^2 \cdot Z^2 + Y^2 \cdot p^2 - 2 \cdot Y \cdot Z \cdot o \cdot p + Z^2 \cdot o^2)} = 0$$

4RST2AB2R1



Unit. $AB := 1$ Given. $N_1 := 2.66100$ $N_2 := 1.50839$ $N_3 := .57360$ $N_4 := 1.22987$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

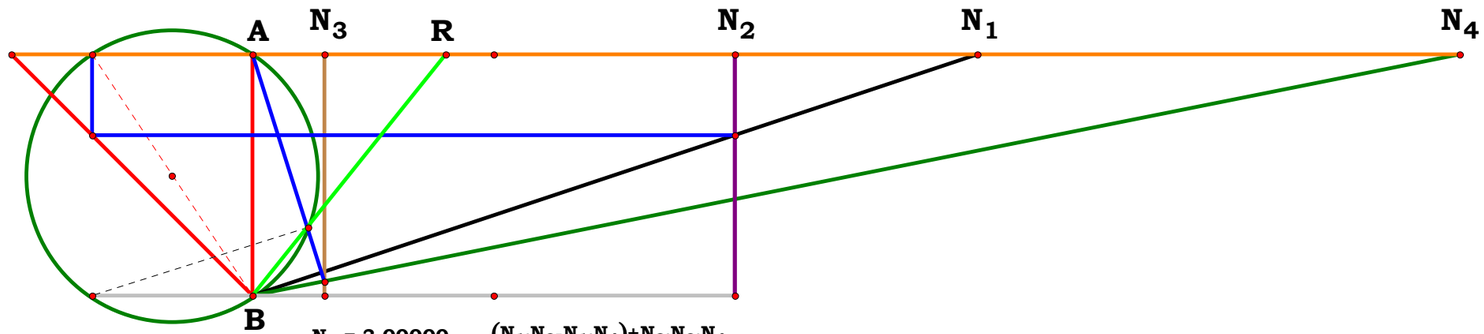
Descriptions.

$AC := \frac{N_2}{N_1}$ $GN_3 := \frac{N_4 - N_3}{N_4}$ $AG := \sqrt{N_3^2 + GN_3^2}$

$BH := \frac{N_3 \cdot AB}{GN_3}$ $DH := BH + AC$ $EH := \frac{N_3 \cdot DH}{AG}$

$FH := \frac{N_3 \cdot EH}{AG}$ $BF := BH - FH$

$EF := \frac{AB \cdot FH}{BH}$ $R := \frac{BF \cdot AB}{EF}$ $R = 0.237951$



Definitions.

$$R - \frac{N_4 - N_3 - AC \cdot N_3 \cdot N_4}{AC \cdot N_4 - AC \cdot N_3 + N_3 \cdot N_4} = 0$$

$$R - \frac{N_1 \cdot N_3 - N_1 \cdot N_4 + N_2 \cdot N_3 \cdot N_4}{N_2 \cdot N_3 - N_2 \cdot N_4 - N_1 \cdot N_3 \cdot N_4} = 0$$

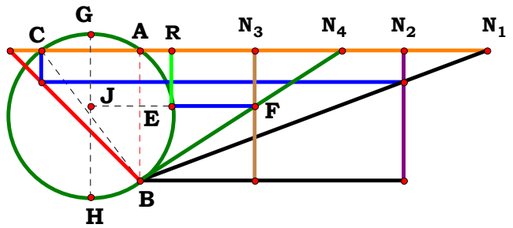
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{B \cdot (C - D) - A \cdot N_u}{A \cdot (C - D) + B \cdot N_u} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{W \cdot Z \cdot n \cdot o - W \cdot Y \cdot n \cdot p - X \cdot Y \cdot Z \cdot m}{W \cdot Y \cdot Z \cdot n - X \cdot Y \cdot m \cdot p + X \cdot Z \cdot m \cdot o} = 0$$

4RST2AB2R2



$N_1 = 2.66100$
$N_2 = 2.02174$
$N_3 = 0.88354$
$N_4 = 1.54950$
$R = 0.24412$

Unit. $AB := 1$ **Given.** $N_1 := 2.66100$ $N_2 := 2.02174$ $N_3 := .88354$ $N_4 := 1.54950$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

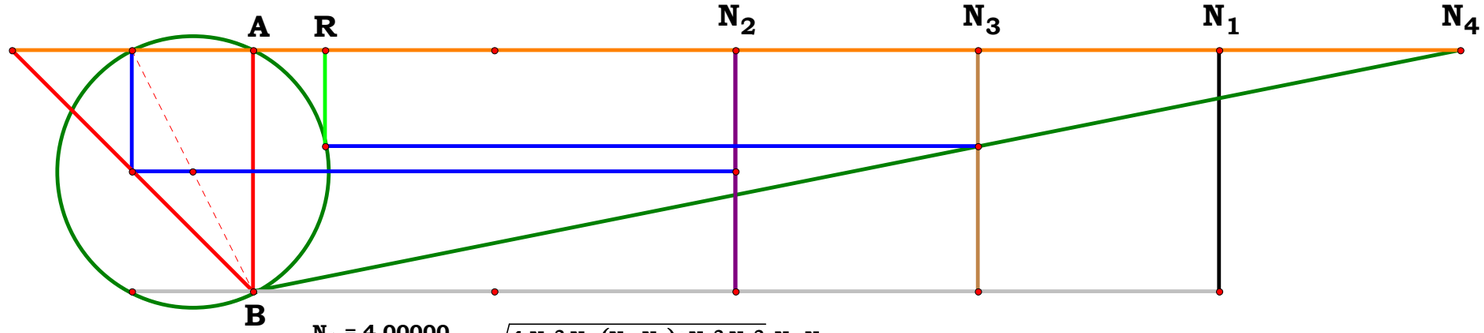
$$AC := \frac{N_2}{N_1} \qquad GH := \sqrt{AB^2 + AC^2}$$

$$GJ := \frac{N_4 - N_3}{N_4} + \frac{GH - AB}{2} \qquad EJ := \sqrt{GJ \cdot (GH - GJ)}$$

$$R := EJ - \frac{AC}{2} \qquad R = 0.244121$$

Definitions.

$$R - \frac{\sqrt{AC^2 \cdot N_4{}^2 - 4 \cdot N_3{}^2 + 4 \cdot N_3 \cdot N_4} - AC \cdot \sqrt{N_4{}^2}}{2 \cdot \sqrt{N_4{}^2}} = 0$$



$N_1 = 4.00000$
$N_2 = 2.00000$
$N_3 = 3.00000$
$N_4 = 5.00000$
$R = 0.30000$

$$\frac{\sqrt{4 \cdot N_1{}^2 \cdot N_3 \cdot (N_4 - N_3) + N_2{}^2 \cdot N_4{}^2} - N_2 \cdot N_4}{2 \cdot N_1 \cdot N_4} - R = 0.00000$$

$$R - \frac{\sqrt{4 \cdot N_1{}^2 \cdot N_3 \cdot (N_4 - N_3) + N_2{}^2 \cdot N_4{}^2} - N_2 \cdot N_4}{2 \cdot N_1 \cdot N_4} = 0$$

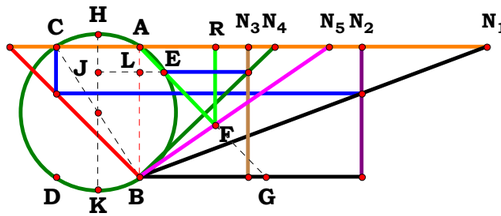
$$N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0 \quad N_4 - \frac{N_u}{D} = 0$$

$$R - \frac{\sqrt{A^2 \cdot C^2 + 4 \cdot B^2 \cdot D \cdot (C - D)} - A \cdot C}{2 \cdot B \cdot C} = 0$$

$$N_1 - \frac{W}{m} = 0 \quad N_2 - \frac{X}{n} = 0 \quad N_3 - \frac{Y}{o} = 0 \quad N_4 - \frac{Z}{p} = 0$$

$$R - \frac{\sqrt{4 \cdot W^2 \cdot Y \cdot n^2 \cdot p \cdot (Z \cdot o - Y \cdot p) + X^2 \cdot Z^2 \cdot m^2 \cdot o^2} - X \cdot Z \cdot m \cdot o}{2 \cdot W \cdot Z \cdot n \cdot o} = 0$$

4RST2AB2R3



$N_1 = 2.66100$
$N_2 = 1.70210$
$N_3 = 0.83511$
$N_4 = 1.03615$
$N_5 = 1.45694$
$R = 0.58336$

Unit. $AB := 1$ **Given.** $N_1 := 2.66100$ $N_2 := 1.70210$ $N_3 := .83511$

$N_4 := 1.03615$ $N_5 := 1.45694$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$

$V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$l := \frac{V}{N_1}$ $m := \frac{W}{N_2}$ $n := \frac{X}{N_3}$ $o := \frac{Y}{N_4}$ $p := \frac{Z}{N_5}$

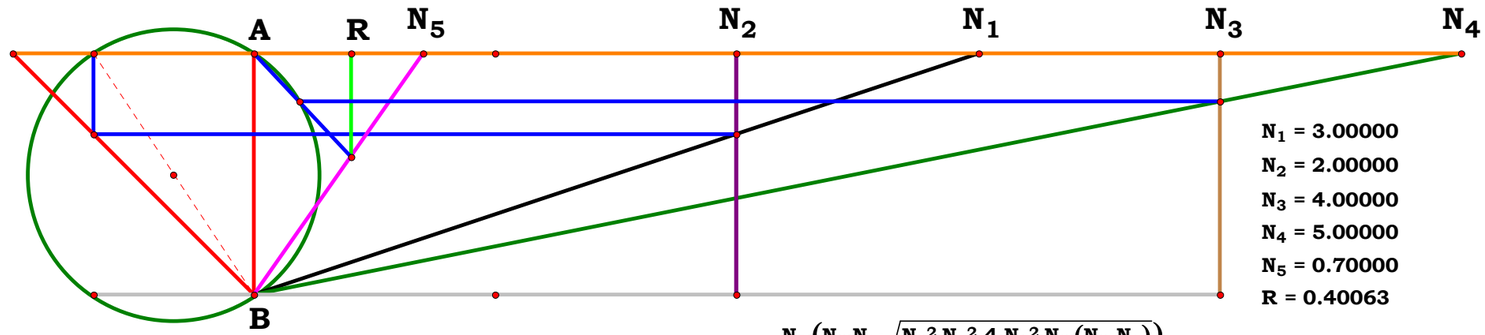
Descriptions.

$AC := \frac{N_2}{N_1}$ $HK := \sqrt{AB^2 + AC^2}$

$AL := \frac{N_4 - N_3}{N_4}$ $HJ := AL + \frac{HK - AB}{2}$

$EJ := \sqrt{HJ \cdot (HK - HJ)}$ $BG := \frac{\left(EJ - \frac{AC}{2}\right) \cdot AB}{AL}$

$R := \frac{N_5 \cdot BG}{N_5 + BG}$ $R = 0.583357$



$N_1 = 3.00000$
$N_2 = 2.00000$
$N_3 = 4.00000$
$N_4 = 5.00000$
$N_5 = 0.70000$
$R = 0.40063$

$$\frac{N_5 \cdot \left(N_2 \cdot N_4 - \sqrt{N_2^2 \cdot N_4^2 - 4 \cdot N_1^2 \cdot N_3 \cdot (N_3 - N_4)}\right)}{\left(N_2 \cdot N_4 + 2 \cdot N_1 \cdot N_5 \cdot (N_3 - N_4)\right) - \sqrt{N_2^2 \cdot N_4^2 - 4 \cdot N_1^2 \cdot N_3 \cdot (N_3 - N_4)}} - R = 0.00000$$

Definitions.

$$R - \frac{N_4 \cdot N_5 \cdot \left(AC \cdot \sqrt{N_4^2} - \sqrt{AC^2 \cdot N_4^2 - 4 \cdot N_3^2 + 4 \cdot N_3 \cdot N_4}\right)}{\sqrt{N_4^2} \cdot \left(AC \cdot N_4 + 2 \cdot N_3 \cdot N_5 - 2 \cdot N_4 \cdot N_5\right) - N_4 \cdot \sqrt{AC^2 \cdot N_4^2 - 4 \cdot N_3^2 + 4 \cdot N_3 \cdot N_4}} = 0$$

$$R - \frac{N_5 \cdot \left[N_2 \cdot N_4 - \sqrt{N_2^2 \cdot N_4^2 - 4 \cdot N_1^2 \cdot N_3 \cdot (N_3 - N_4)}\right]}{N_2 \cdot N_4 + 2 \cdot N_1 \cdot N_5 \cdot (N_3 - N_4) - \sqrt{N_2^2 \cdot N_4^2 - 4 \cdot N_1^2 \cdot N_3 \cdot (N_3 - N_4)}} = 0$$

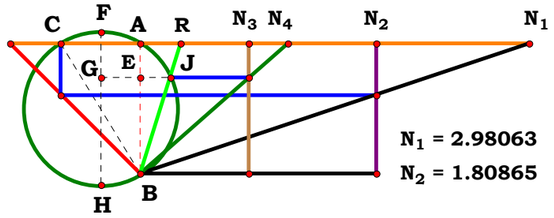
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$

$$R - \frac{N_u \cdot \left[A \cdot C - \sqrt{A^2 \cdot C^2 + 4 \cdot B^2 \cdot D \cdot (C - D)}\right]}{A \cdot C \cdot E - E \cdot \sqrt{A^2 \cdot C^2 + 4 \cdot B^2 \cdot D \cdot (C - D)} - 2 \cdot B \cdot N_u \cdot (C - D)} = 0$$

$N_1 - \frac{V}{l} = 0$ $N_2 - \frac{W}{m} = 0$ $N_3 - \frac{X}{n} = 0$ $N_4 - \frac{Y}{o} = 0$ $N_5 - \frac{Z}{p} = 0$

$$R - \frac{Z \cdot \left[W \cdot Y \cdot l \cdot n - \sqrt{\left(4 \cdot V^2 \cdot X \cdot Y \cdot m^2 \cdot n \cdot o - 4 \cdot V^2 \cdot X^2 \cdot m^2 \cdot o^2 + W^2 \cdot Y^2 \cdot l^2 \cdot n^2\right)}\right]}{2 \cdot V \cdot Z \cdot m \cdot (X \cdot o - Y \cdot n) + W \cdot Y \cdot l \cdot n \cdot p - p \cdot \sqrt{4 \cdot V^2 \cdot X \cdot Y \cdot m^2 \cdot n \cdot o - 4 \cdot V^2 \cdot X^2 \cdot m^2 \cdot o^2 + W^2 \cdot Y^2 \cdot l^2 \cdot n^2}} = 0$$

4RST2AB2R4



$N_3 = 0.83511$
$N_4 = 1.13301$
$R = 0.31373$

$N_1 = 2.98063$
$N_2 = 1.80865$

Unit. $AB := 1$ **Given.** $N_1 := 2.98063$ $N_2 := 1.80865$ $N_3 := .83511$ $N_4 := 1.13301$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

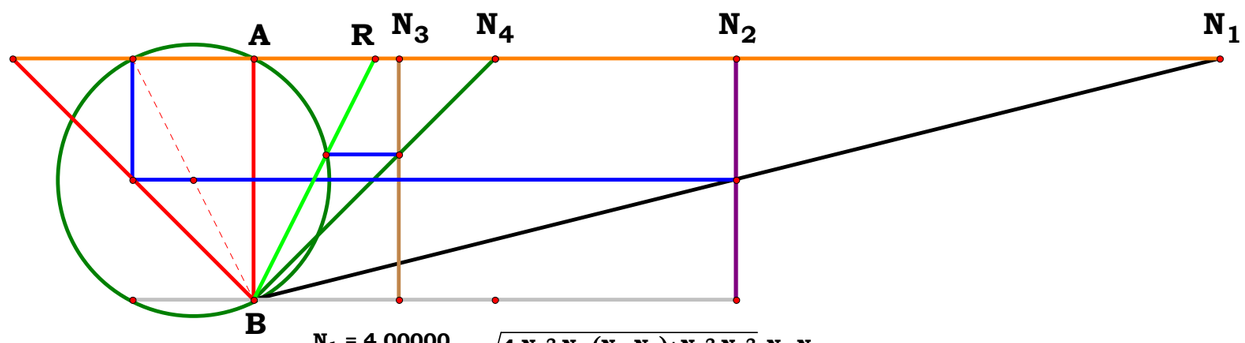
Descriptions.

$AC := \frac{N_2}{N_1}$ $AE := \frac{N_4 - N_3}{N_4}$ $BE := AB - AE$

$FH := \sqrt{AB^2 + AC^2}$ $FG := AE + \frac{FH - AB}{2}$

$GJ := \sqrt{FG \cdot (FH - FG)}$ $EJ := GJ - \frac{AC}{2}$ $R := \frac{EJ}{BE}$

$R = 0.313738$



$N_1 = 4.00000$
$N_2 = 2.00000$
$N_3 = 0.60000$
$N_4 = 1.00000$
$R = 0.50000$

$\frac{\sqrt{4 \cdot N_1^2 \cdot N_3 \cdot (N_4 - N_3) + N_2^2 \cdot N_4^2} - N_2 \cdot N_4}{2 \cdot N_1 \cdot N_3} - R = 0.00000$

Definitions.

$$R - \frac{N_4 \cdot \sqrt{AC^2 \cdot N_4^2 - 4 \cdot N_3^2 + 4 \cdot N_3 \cdot N_4} - AC \cdot N_4 \cdot \sqrt{N_4^2}}{2 \cdot N_3 \cdot \sqrt{N_4^2}} = 0$$

$$R - \frac{\sqrt{4 \cdot N_1^2 \cdot N_3 \cdot (N_4 - N_3) + N_2^2 \cdot N_4^2} - N_2 \cdot N_4}{2 \cdot N_1 \cdot N_3} = 0$$

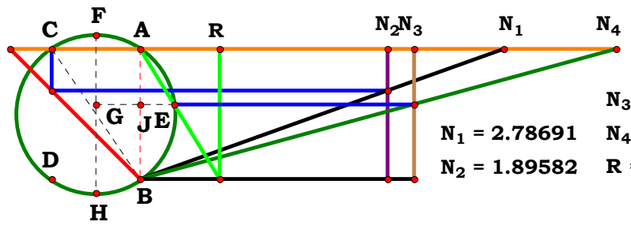
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{\sqrt{A^2 \cdot C^2 + 4 \cdot B^2 \cdot D \cdot (C - D)} - A \cdot C}{2 \cdot B \cdot D} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{\sqrt{4 \cdot W^2 \cdot Y \cdot n^2 \cdot p \cdot (Z \cdot o - Y \cdot p) + X^2 \cdot Z^2 \cdot m^2 \cdot o^2} - X \cdot Z \cdot m \cdot o}{2 \cdot W \cdot Y \cdot n \cdot p} = 0$$

4RST2AB1R5



$N_3 = 2.10395$ $N_4 = 3.65131$

$N_1 = 2.78691$ $R = 0.61298$

$N_2 = 1.89582$

Unit. $AB := 1$ Given. $N_1 := 2.78691$ $N_2 := 1.89582$ $N_3 := 2.10395$ $N_4 := 3.65131$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

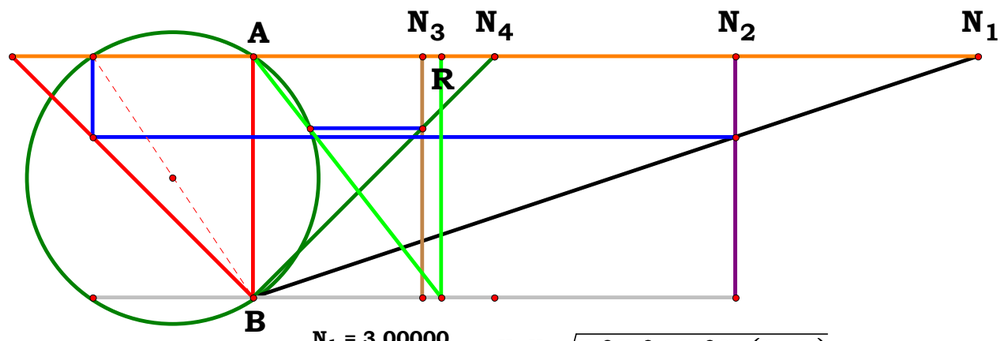
Descriptions.

$AC := \frac{N_2}{N_1}$ $AJ := \frac{N_4 - N_3}{N_4}$

$FH := \sqrt{AB^2 + AC^2}$ $FG := AJ + \frac{FH - AB}{2}$

$EG := \sqrt{FG \cdot (FH - FG)}$ $EJ := EG - \frac{AC}{2}$

$R := \frac{EJ \cdot AB}{AJ}$ $R = 0.612979$



$N_1 = 3.00000$

$N_2 = 2.00000$

$N_3 = 0.70000$

$N_4 = 1.00000$

$R = 0.77778$

$\frac{N_2 \cdot N_4 - \sqrt{N_2^2 \cdot N_4^2 - 4 \cdot N_1^2 \cdot N_3 \cdot (N_3 - N_4)}}{2 \cdot N_1 \cdot (N_3 - N_4)} - R = 0.00000$

Definitions.

$$R - \frac{N_4 \cdot \left(AC \cdot \sqrt{N_4^2} - \sqrt{AC^2 \cdot N_4^2 - 4 \cdot N_3^2 + 4 \cdot N_3 \cdot N_4}\right)}{2 \cdot (N_3 - N_4) \cdot \sqrt{N_4^2}} = 0$$

$$R - \frac{N_2 \cdot N_4 - \sqrt{N_2^2 \cdot N_4^2 - 4 \cdot N_1^2 \cdot N_3 \cdot (N_3 - N_4)}}{2 \cdot N_1 \cdot (N_3 - N_4)} = 0$$

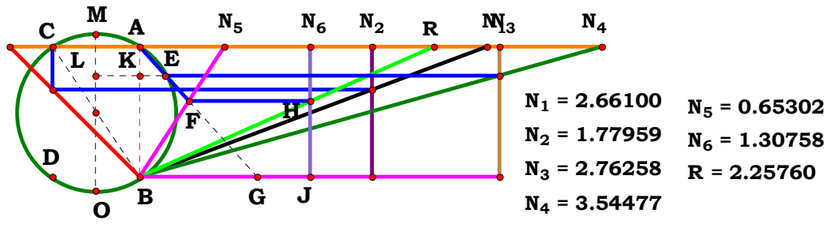
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{\sqrt{A^2 \cdot C^2 + 4 \cdot B^2 \cdot D \cdot (C - D)} - A \cdot C}{2 \cdot B \cdot (C - D)} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{X \cdot Z \cdot m \cdot o - \sqrt{4 \cdot W^2 \cdot Y \cdot n^2 \cdot p \cdot (Z \cdot o - Y \cdot p) + X^2 \cdot Z^2 \cdot m^2 \cdot o^2}}{2 \cdot W \cdot n \cdot (Y \cdot p - Z \cdot o)} = 0$$

4RST2AB2R9



$N_1 = 2.66100$
$N_2 = 1.77959$
$N_3 = 2.76258$
$N_4 = 3.54477$
$N_5 = 0.65302$
$N_6 = 1.30758$
$R = 2.25760$

Unit. $AB := 1$ **Given.** $N_1 := 2.66100$ $N_2 := 1.77959$ $N_3 := 2.76258$ $N_4 := 3.54477$ $N_5 := .65302$ $N_6 := 1.30758$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $F := \frac{N_u}{N_6}$

$U := 18$ $V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$k := \frac{U}{N_1}$ $l := \frac{V}{N_2}$ $m := \frac{W}{N_3}$ $n := \frac{X}{N_4}$ $o := \frac{Y}{N_5}$ $p := \frac{Z}{N_6}$

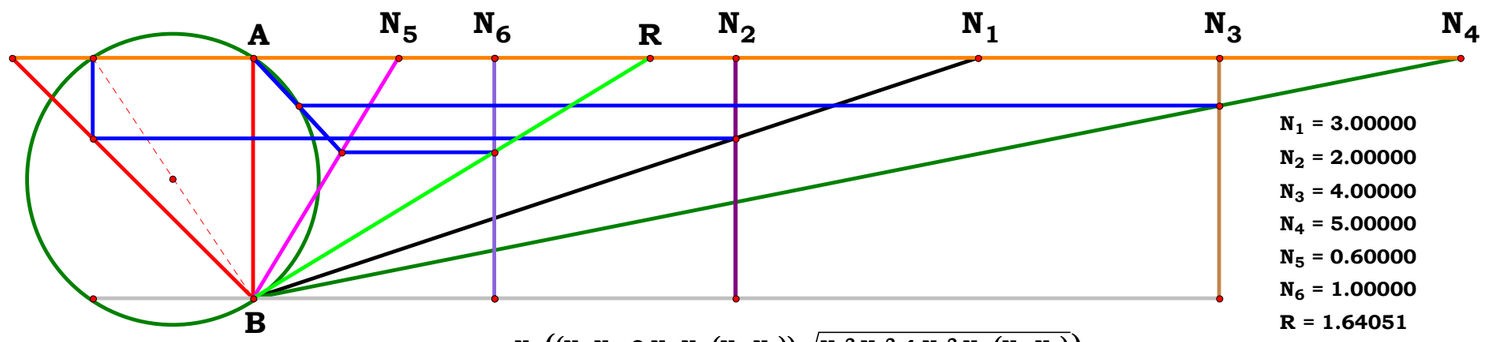
Descriptions.

$AC := \frac{N_2}{N_1}$ $AK := \frac{N_4 - N_3}{N_4}$ $MO := \sqrt{AB^2 + AC^2}$

$ML := AK + \frac{MO - AB}{2}$ $EL := \sqrt{ML \cdot (MO - ML)}$

$EK := EL - \frac{AC}{2}$ $BG := \frac{EK \cdot AB}{AK}$ $HJ := \frac{BG}{BG + N_5}$

$R := \frac{N_6}{HJ}$ $R = 2.257605$



$N_1 = 3.00000$
$N_2 = 2.00000$
$N_3 = 4.00000$
$N_4 = 5.00000$
$N_5 = 0.60000$
$N_6 = 1.00000$
$R = 1.64051$

$$\frac{N_6 \cdot \left((N_2 \cdot N_4 + 2 \cdot N_1 \cdot N_5 \cdot (N_3 - N_4)) - \sqrt{N_2^2 \cdot N_4^2 - 4 \cdot N_1^2 \cdot N_3 \cdot (N_3 - N_4)}\right)}{N_2 \cdot N_4 - \sqrt{N_2^2 \cdot N_4^2 - 4 \cdot N_1^2 \cdot N_3 \cdot (N_3 - N_4)}} - R = 0.00000$$

Definitions.

$$R - \frac{N_6 \cdot \left[\sqrt{N_4^2} \cdot \left(AC \cdot N_4 + 2 \cdot N_3 \cdot N_5 - 2 \cdot N_4 \cdot N_5\right) - N_4 \cdot \sqrt{AC^2 \cdot N_4^2 - 4 \cdot N_3^2 + 4 \cdot N_3 \cdot N_4}\right]}{N_4 \cdot \left(AC \cdot \sqrt{N_4^2} - \sqrt{AC^2 \cdot N_4^2 - 4 \cdot N_3^2 + 4 \cdot N_3 \cdot N_4}\right)} = 0$$

$$R - \frac{N_6 \cdot \left[N_2 \cdot N_4 + 2 \cdot N_1 \cdot N_5 \cdot \left(N_3 - N_4\right) - \sqrt{N_2^2 \cdot N_4^2 - 4 \cdot N_1^2 \cdot N_3 \cdot \left(N_3 - N_4\right)}\right]}{N_2 \cdot N_4 - \sqrt{N_2^2 \cdot N_4^2 - 4 \cdot N_1^2 \cdot N_3 \cdot \left(N_3 - N_4\right)}} = 0$$

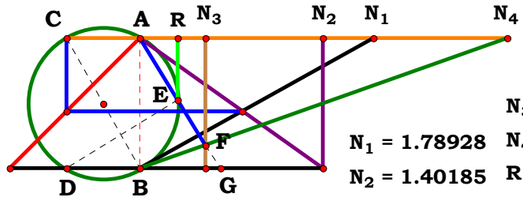
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$ $N_6 - \frac{N_u}{F} = 0$

$$R - \frac{N_u \cdot \left[A \cdot C \cdot E - E \cdot \sqrt{A^2 \cdot C^2 + 4 \cdot B^2 \cdot D \cdot (C - D)} - 2 \cdot B \cdot N_u \cdot (C - D)\right]}{E \cdot F \cdot \left[A \cdot C - \sqrt{A^2 \cdot C^2 + 4 \cdot B^2 \cdot D \cdot (C - D)}\right]} = 0$$

$N_1 - \frac{U}{k} = 0$ $N_2 - \frac{V}{l} = 0$ $N_3 - \frac{W}{m} = 0$ $N_4 - \frac{X}{n} = 0$ $N_5 - \frac{Y}{o} = 0$ $N_6 - \frac{Z}{p} = 0$

$$R - \frac{Z \cdot \left[2 \cdot U \cdot Y \cdot l \cdot (W \cdot n - X \cdot m) + V \cdot X \cdot k \cdot m \cdot o - o \cdot \sqrt{4 \cdot U^2 \cdot W \cdot l^2 \cdot n \cdot (X \cdot m - W \cdot n) + V^2 \cdot X^2 \cdot k^2 \cdot m^2}\right]}{o \cdot p \cdot \left[V \cdot X \cdot k \cdot m - \sqrt{4 \cdot U^2 \cdot W \cdot l^2 \cdot n \cdot (X \cdot m - W \cdot n) + V^2 \cdot X^2 \cdot k^2 \cdot m^2}\right]} = 0$$

4RST2AB3R0



$N_3 = 0.50580$ $N_4 = 2.81833$ $R = 0.29230$

$N_1 = 1.78928$ $N_2 = 1.40185$

Unit. $AB := 1$ Given. $N_1 := 1.78926$ $N_2 := 1.40185$ $N_3 := .50580$ $N_4 := 2.81833$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

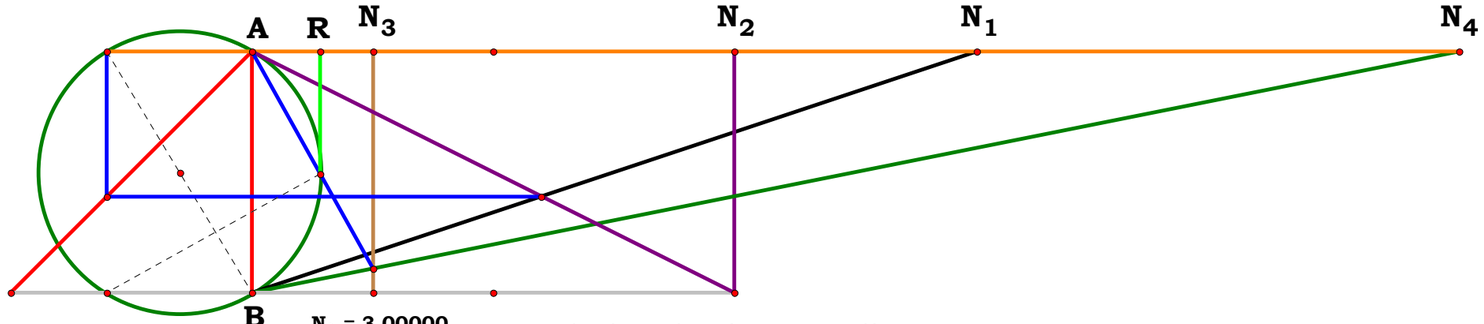
Descriptions.

$AC := \frac{N_1}{N_1 + N_2}$ $FN_3 := \frac{N_4 - N_3}{N_4}$ $AF := \sqrt{N_3^2 + FN_3^2}$

$AG := \frac{AF \cdot AB}{FN_3}$ $BG := \frac{N_3 \cdot AB}{FN_3}$ $DG := BG + AC$

$EG := \frac{N_3 \cdot DG}{AF}$ $AE := AG - EG$

$R := \frac{N_3 \cdot AE}{AF}$ $R = 0.292301$



$N_1 = 3.00000$
$N_2 = 2.00000$
$N_3 = 0.50000$
$N_4 = 5.00000$
$R = 0.28302$

$\frac{N_3 \cdot N_4 \cdot (N_4 \cdot (N_1 + N_2) - N_3 \cdot (N_1 + N_2 + N_1 \cdot N_4))}{(N_1 + N_2) \cdot ((N_3^2 \cdot (N_4^2 + 1) - 2 \cdot N_3 \cdot N_4) + N_4^2)} - R = 0.00000$

Definitions.

$$R - \frac{N_3 \cdot N_4 \cdot (N_4 - N_3 - AC \cdot N_3 \cdot N_4)}{N_3^2 \cdot N_4^2 + N_3^2 - 2 \cdot N_3 \cdot N_4 + N_4^2} = 0$$

$$R - \frac{N_3 \cdot N_4 \cdot [N_4 \cdot (N_1 + N_2) - N_3 \cdot (N_1 + N_2 + N_1 \cdot N_4)]}{(N_1 + N_2) \cdot [N_3^2 \cdot (N_4^2 + 1) - 2 \cdot N_3 \cdot N_4 + N_4^2]} = 0$$

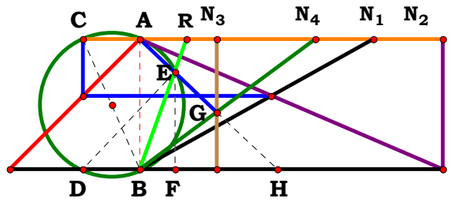
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{N_u \cdot [(C - D) \cdot (A + B) - B \cdot N_u]}{(A + B) \cdot [(C - D)^2 + N_u^2]} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{Y \cdot Z \cdot [W \cdot n \cdot (Z \cdot o - Y \cdot p - Y \cdot Z) + X \cdot m \cdot (Z \cdot o - Y \cdot p)]}{(W \cdot n + X \cdot m) \cdot (Y^2 \cdot Z^2 + Y^2 \cdot p^2 - 2 \cdot Y \cdot Z \cdot o \cdot p + Z^2 \cdot o^2)} = 0$$

4RST2AB3R1



$N_1 = 1.78928$
$N_2 = 2.32200$
$N_3 = 0.59297$
$N_4 = 1.34610$
$R = 0.36035$

Unit. $AB := 1$ Given. $N_1 := 1.78929$ $N_2 := 2.32200$ $N_3 := .59297$ $N_4 := 1.3461$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

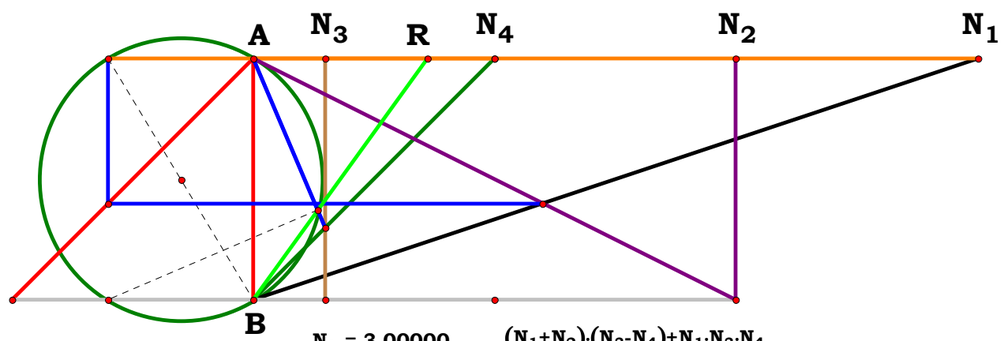
Descriptions.

$AC := \frac{N_1}{N_1 + N_2}$ $GN_3 := \frac{N_4 - N_3}{N_4}$ $AG := \sqrt{N_3^2 + GN_3^2}$

$BH := \frac{N_3 \cdot AB}{GN_3}$ $DH := BH + AC$ $EH := \frac{N_3 \cdot DH}{AG}$

$FH := \frac{N_3 \cdot EH}{AG}$ $BF := BH - FH$ $EF := \frac{AB \cdot FH}{BH}$

$R := \frac{BF \cdot AB}{EF}$ $R = 0.360351$



$N_1 = 3.00000$
$N_2 = 2.00000$
$N_3 = 0.30000$
$N_4 = 1.00000$
$x_R = 0.72222$

$\frac{(N_1+N_2)\cdot(N_3-N_4)+N_1\cdot N_3\cdot N_4}{N_1\cdot(N_3-N_4)-N_3\cdot N_4\cdot(N_1+N_2)} - x_R = 0.00000$

Definitions.

$R - \frac{N_4 - N_3 - AC \cdot N_3 \cdot N_4}{AC \cdot N_4 - AC \cdot N_3 + N_3 \cdot N_4} = 0$

$R - \frac{(N_3 - N_4) \cdot (N_1 + N_2) + N_1 \cdot N_3 \cdot N_4}{N_1 \cdot (N_3 - N_4) - N_3 \cdot N_4 \cdot (N_1 + N_2)} = 0$

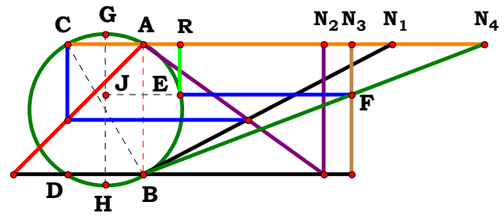
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$R - \frac{(C - D) \cdot (A + B) - B \cdot N_u}{B \cdot (C - D) + N_u \cdot (A + B)} = 0$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$R - \frac{W \cdot n \cdot (Z \cdot o - Y \cdot p - Y \cdot Z) + X \cdot m \cdot (Z \cdot o - Y \cdot p)}{W \cdot n \cdot (Y \cdot Z - Y \cdot p + Z \cdot o) + X \cdot Y \cdot Z \cdot m} = 0$

4RST2AB3R2



$N_1 = 1.90551$
$N_2 = 1.38247$
$N_3 = 1.60029$
$N_4 = 2.61493$
$R = 0.27718$

Unit. $AB := 1$ Given. $N_1 := 1.90551$ $N_2 := 1.38247$ $N_3 := 1.60029$ $N_4 := 2.61493$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

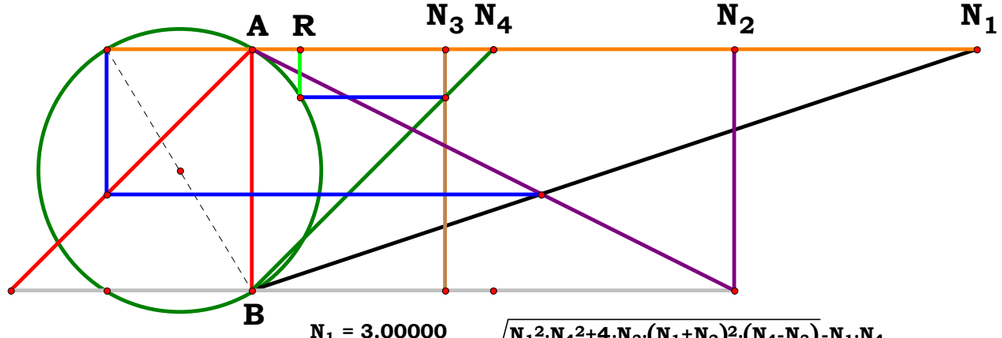
Descriptions.

$AC := \frac{N_1}{N_1 + N_2}$ $GH := \sqrt{AB^2 + AC^2}$

$GJ := \frac{N_4 - N_3}{N_4} + \frac{GH - AB}{2}$

$EJ := \sqrt{GJ \cdot (GH - GJ)}$ $R := EJ - \frac{AC}{2}$

$R = 0.277175$



$N_1 = 3.00000$
$N_2 = 2.00000$
$N_3 = 0.80000$
$N_4 = 1.00000$
$R = 0.20000$

$\frac{\sqrt{N_1^2 \cdot N_4^2 + 4 \cdot N_3 \cdot (N_1 + N_2)^2 \cdot (N_4 - N_3)} - N_1 \cdot N_4}{2 \cdot N_4 \cdot (N_1 + N_2)} - R = 0.00000$

Definitions.

$$R - \frac{\sqrt{AC^2 \cdot N_4^{\,2} - 4 \cdot N_3^{\,2} + 4 \cdot N_3 \cdot N_4} - AC \cdot \sqrt{N_4^{\,2}}}{2 \cdot \sqrt{N_4^{\,2}}} = 0$$

$$R - \frac{\sqrt{N_1^{\,2} \cdot N_4^{\,2} + 4 \cdot N_3 \cdot (N_1 + N_2)^2 \cdot (N_4 - N_3)} - N_1 \cdot N_4}{2 \cdot (N_1 + N_2) \cdot N_4} = 0$$

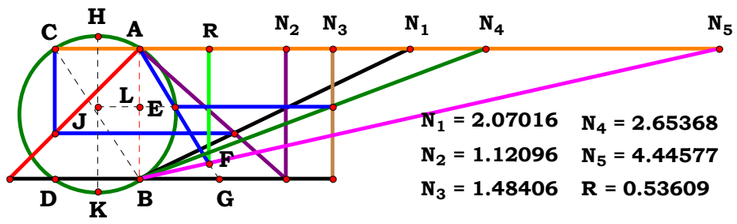
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{\sqrt{B^2 \cdot C^2 + 4 \cdot D \cdot (A + B)^2 \cdot (C - D)} - B \cdot C}{2 \cdot (A + B) \cdot C} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{\sqrt{W^2 \cdot n^2 \cdot o^2 \cdot Z^2 + 4 \cdot Z \cdot Y \cdot o \cdot p \cdot (W \cdot n + X \cdot m)^2 - \left[4 \cdot Y^2 \cdot p^2 \cdot (W \cdot n + X \cdot m)^2\right]} - W \cdot Z \cdot n \cdot o}{2 \cdot Z \cdot o \cdot (W \cdot n + X \cdot m)} = 0$$

4RST2AB3R3



Unit. $AB := 1$ Given. $N_1 := 2.07016$ $N_2 := 1.12096$ $N_3 := 1.48406$

$N_4 := 2.65368$ $N_5 := 4.44577$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$

$V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $l := \frac{V}{N_1}$ $m := \frac{W}{N_2}$ $n := \frac{X}{N_3}$ $o := \frac{Y}{N_4}$ $p := \frac{Z}{N_5}$

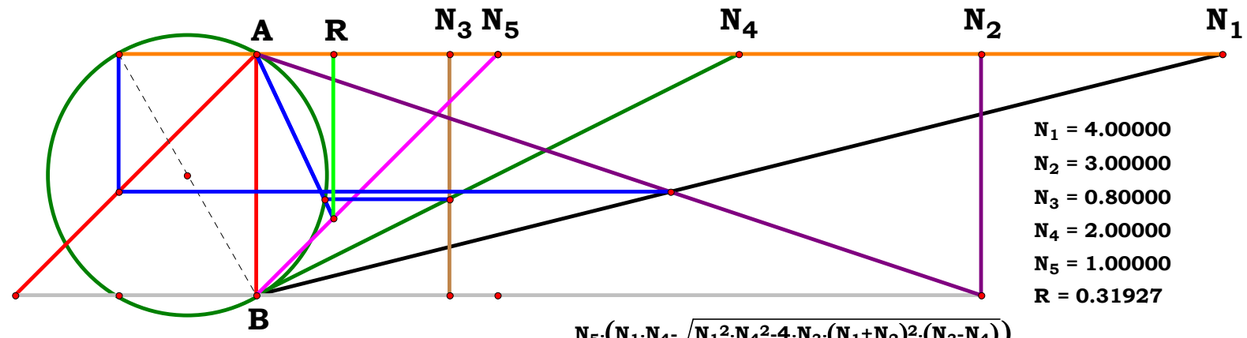
Descriptions.

$AC := \frac{N_1}{N_1 + N_2}$ $HK := \sqrt{AB^2 + AC^2}$

$AL := \frac{N_4 - N_3}{N_4}$ $HJ := AL + \frac{HK - AB}{2}$

$EJ := \sqrt{HJ \cdot (HK - HJ)}$ $BG := \frac{\left(EJ - \frac{AC}{2}\right) \cdot AB}{AL}$

$R := \frac{N_5 \cdot BG}{N_5 + BG}$ $R = 0.536087$



$\frac{N_5 \cdot \left(N_1 \cdot N_4 - \sqrt{N_1^2 \cdot N_4^2 - 4 \cdot N_3 \cdot (N_1 + N_2)^2 \cdot (N_3 - N_4)}\right)}{(N_1 \cdot N_4 + 2 \cdot N_5 \cdot (N_1 + N_2) \cdot (N_3 - N_4)) - \sqrt{N_1^2 \cdot N_4^2 - 4 \cdot N_3 \cdot (N_1 + N_2)^2 \cdot (N_3 - N_4)}} - R = 0.00000$

Definitions.

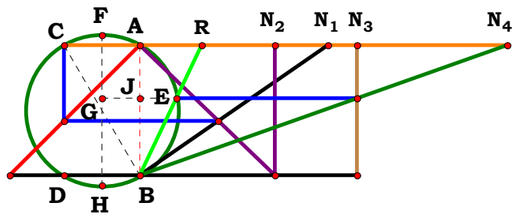
$$R - \frac{N_4 \cdot N_5 \cdot \left(AC \cdot \sqrt{N_4^2} - \sqrt{AC^2 \cdot N_4^2 - 4 \cdot N_3^2 + 4 \cdot N_3 \cdot N_4}\right)}{\sqrt{N_4^2} \cdot \left(AC \cdot N_4 + 2 \cdot N_3 \cdot N_5 - 2 \cdot N_4 \cdot N_5\right) - N_4 \cdot \sqrt{AC^2 \cdot N_4^2 - 4 \cdot N_3^2 + 4 \cdot N_3 \cdot N_4}} = 0$$

$$R - \frac{N_5 \cdot \left[N_1 \cdot N_4 - \sqrt{N_1^2 \cdot N_4^2 - 4 \cdot N_3 \cdot (N_3 - N_4) \cdot (N_1 + N_2)^2}\right]}{N_1 \cdot N_4 + 2 \cdot N_5 \cdot (N_3 - N_4) \cdot (N_1 + N_2) - \sqrt{N_1^2 \cdot N_4^2 - 4 \cdot N_3 \cdot (N_3 - N_4) \cdot (N_1 + N_2)^2}} = 0 \qquad N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0 \quad N_4 - \frac{N_u}{D} = 0 \quad N_5 - \frac{N_u}{E} = 0$$

$$R - \frac{N_u \cdot \left[\sqrt{B^2 \cdot C^2 - 4 \cdot D^2 \cdot (A + B)^2 + 4 \cdot C \cdot D \cdot (A + B)^2} - B \cdot C\right]}{E \cdot \sqrt{B^2 \cdot C^2 - 4 \cdot D^2 \cdot (A + B)^2 + 4 \cdot C \cdot D \cdot (A + B)^2} + 2 \cdot N_u \cdot (C - D) \cdot (A + B) - B \cdot C \cdot E} = 0 \qquad N_1 - \frac{V}{l} = 0 \quad N_2 - \frac{W}{m} = 0 \quad N_3 - \frac{X}{n} = 0 \quad N_4 - \frac{Y}{o} = 0 \quad N_5 - \frac{Z}{p} = 0$$

$$R - \frac{Z \cdot \left[V \cdot Y \cdot m \cdot n - \sqrt{4 \cdot X \cdot o \cdot (V \cdot m + W \cdot l)^2 \cdot (Y \cdot n - X \cdot o) + V^2 \cdot Y^2 \cdot m^2 \cdot n^2}\right]}{2 \cdot Z \cdot (X \cdot o - Y \cdot n) \cdot (V \cdot m + W \cdot l) + V \cdot Y \cdot m \cdot n \cdot p - p \cdot \sqrt{4 \cdot X \cdot o \cdot (V \cdot m + W \cdot l)^2 \cdot (Y \cdot n - X \cdot o) + V^2 \cdot Y^2 \cdot m^2 \cdot n^2}} = 0$$

4RST2AB3R4



$N_1 = 1.44059$
$N_2 = 1.03379$
$N_3 = 1.66809$
$N_4 = 2.81833$
$R = 0.47329$

Unit. $AB := 1$ Given. $N_1 := 1.44059$ $N_2 := 1.03379$ $N_3 := 1.66809$ $N_4 := 2.81833$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

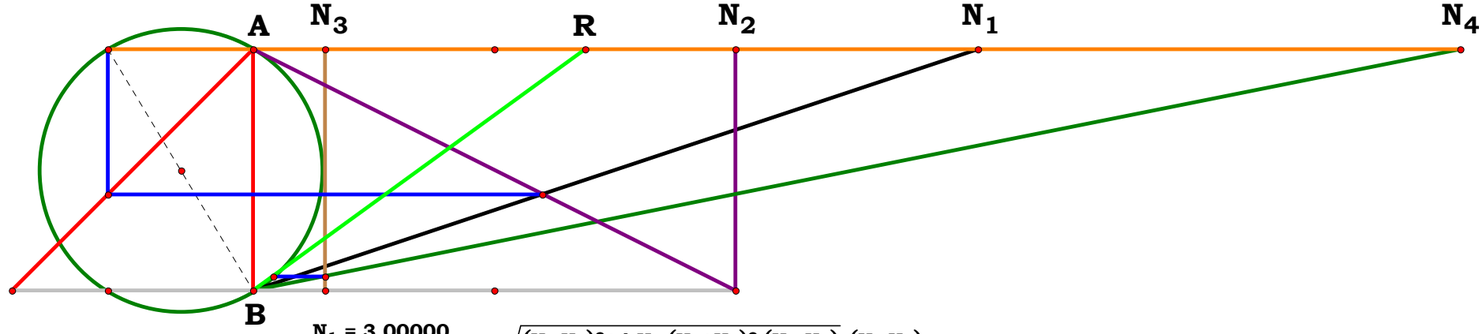
Descriptions.

$AC := \frac{N_1}{N_1 + N_2}$ $AE := \frac{N_4 - N_3}{N_4}$ $BE := AB - AE$

$FH := \sqrt{AB^2 + AC^2}$ $FG := AE + \frac{FH - AB}{2}$

$EG := \sqrt{FG \cdot (FH - FG)}$ $EJ := EG - \frac{AC}{2}$

$R := \frac{EJ \cdot AB}{BE}$ $R = 0.473287$



$N_1 = 3.00000$
$N_2 = 2.00000$
$N_3 = 0.30000$
$N_4 = 5.00000$
$R = 1.37704$

$\frac{\sqrt{(N_1 \cdot N_4)^2 + 4 \cdot N_3 \cdot (N_1 + N_2)^2 \cdot (N_4 - N_3)} - (N_1 \cdot N_4)}{2 \cdot N_3 \cdot (N_1 + N_2)} - R = 0.00000$

Definitions.

$$R - \frac{N_4 \cdot \sqrt{AC^2 \cdot N_4^2 - 4 \cdot N_3^2 + 4 \cdot N_3 \cdot N_4} - AC \cdot N_4 \cdot \sqrt{N_4^2}}{2 \cdot N_3 \cdot \sqrt{N_4^2}} = 0$$

$$R - \frac{\sqrt{(N_1 \cdot N_4)^2 + 4 \cdot N_3 \cdot (N_1 + N_2)^2 \cdot (N_4 - N_3)} - N_1 \cdot N_4}{2 \cdot (N_1 + N_2) \cdot N_3} = 0$$

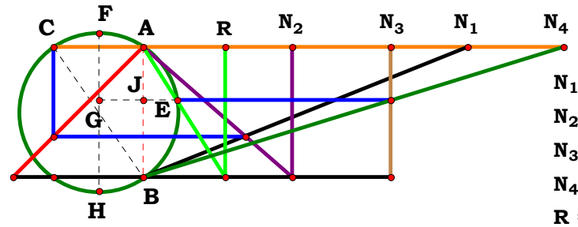
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{\sqrt{B^2 \cdot C^2 + 4 \cdot D \cdot (A + B)^2 \cdot (C - D)} - B \cdot C}{2 \cdot (A + B) \cdot D} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{\sqrt{4 \cdot Y \cdot p \cdot (W \cdot n + X \cdot m)^2 \cdot (Z \cdot o - Y \cdot p) + W^2 \cdot Z^2 \cdot n^2 \cdot o^2} - W \cdot Z \cdot n \cdot o}{2 \cdot Y \cdot p \cdot (W \cdot n + X \cdot m)} = 0$$

4RST2AB3R5



$N_1 = 2.48665$
$N_2 = 1.14033$
$N_3 = 1.90055$
$N_4 = 3.22514$
$R = 0.62530$

Unit. $AB := 1$ **Given.** $N_1 := 2.48665$ $N_2 := 1.14033$ $N_3 := 1.90055$ $N_4 := 3.22514$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

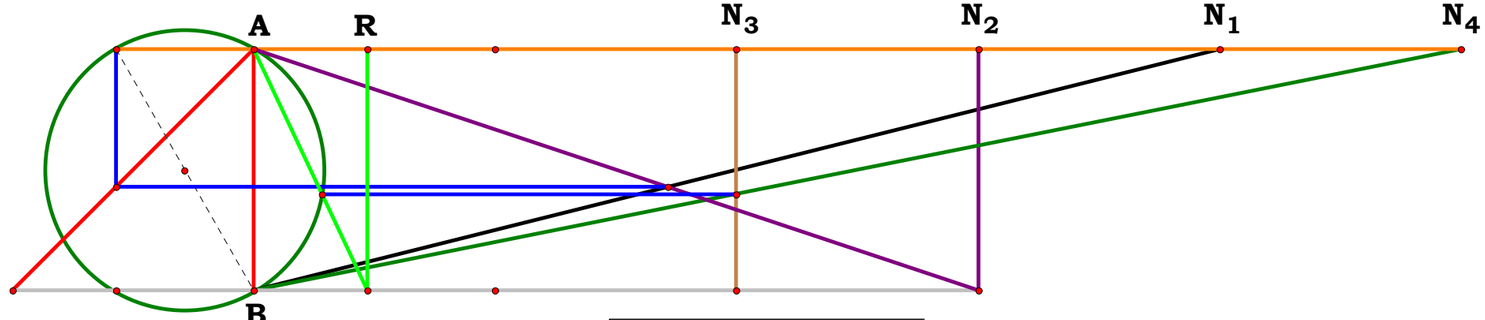
Descriptions.

$AC := \frac{N_1}{N_1 + N_2}$ $AJ := \frac{N_4 - N_3}{N_4}$

$FH := \sqrt{AB^2 + AC^2}$ $FG := AJ + \frac{FH - AB}{2}$

$EG := \sqrt{FG \cdot (FH - FG)}$ $EJ := EG - \frac{AC}{2}$

$R := \frac{EJ \cdot AB}{AJ}$ $R = 0.625301$



$N_1 = 4.00000$
$N_2 = 3.00000$
$N_3 = 2.00000$
$N_4 = 5.00000$
$R = 0.46902$

$\frac{(N_1 \cdot N_4) - \sqrt{(N_1 \cdot N_4)^2 - 4 \cdot N_3 \cdot (N_1 + N_2)^2 \cdot (N_3 - N_4)}}{2 \cdot (N_1 + N_2) \cdot (N_3 - N_4)} - R = 0.00000$

Definitions.

$$R - \frac{N_4 \cdot \left(AC \cdot \sqrt{N_4^2} - \sqrt{AC^2 \cdot N_4^2 - 4 \cdot N_3^2 + 4 \cdot N_3 \cdot N_4}\right)}{2 \cdot (N_3 - N_4) \cdot \sqrt{N_4^2}} = 0$$

$$R - \frac{N_1 \cdot N_4 - \sqrt{N_1^2 \cdot N_4^2 - 4 \cdot N_3 \cdot (N_1 + N_2)^2 \cdot (N_3 - N_4)}}{2 \cdot (N_1 + N_2) \cdot (N_3 - N_4)} = 0$$

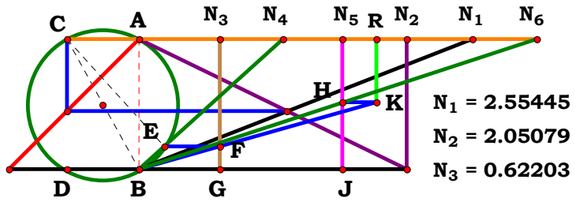
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{\sqrt{B^2 \cdot C^2 + 4 \cdot D \cdot (A + B)^2 \cdot (C - D)} - B \cdot C}{2 \cdot (A + B) \cdot (C - D)} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{W \cdot Z \cdot n \cdot o - \sqrt{4 \cdot Y \cdot p \cdot (W \cdot n + X \cdot m)^2 \cdot (Z \cdot o - Y \cdot p) + W^2 \cdot Z^2 \cdot n^2 \cdot o^2}}{2 \cdot (W \cdot n + X \cdot m) \cdot (Y \cdot p - Z \cdot o)} = 0$$

4RST2AB3R6



$N_1 = 2.55445$ $N_4 = 1.10395$
$N_2 = 2.05079$ $N_5 = 1.55941$
$N_3 = 0.62203$ $N_6 = 3.05208$
$R = 1.81897$

Unit. $AB := 1$ Given. $N_1 := 2.55445$ $N_2 := 2.05079$ $N_3 := .62203$
$N_4 := 1.10395$ $N_5 := 1.55941$ $N_6 := 3.05208$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $F := \frac{N_u}{N_6}$

$U := 18$ $V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$k := \frac{U}{N_1}$ $l := \frac{V}{N_2}$ $m := \frac{W}{N_3}$ $n := \frac{X}{N_4}$ $o := \frac{Y}{N_5}$ $p := \frac{Z}{N_6}$

Descriptions.

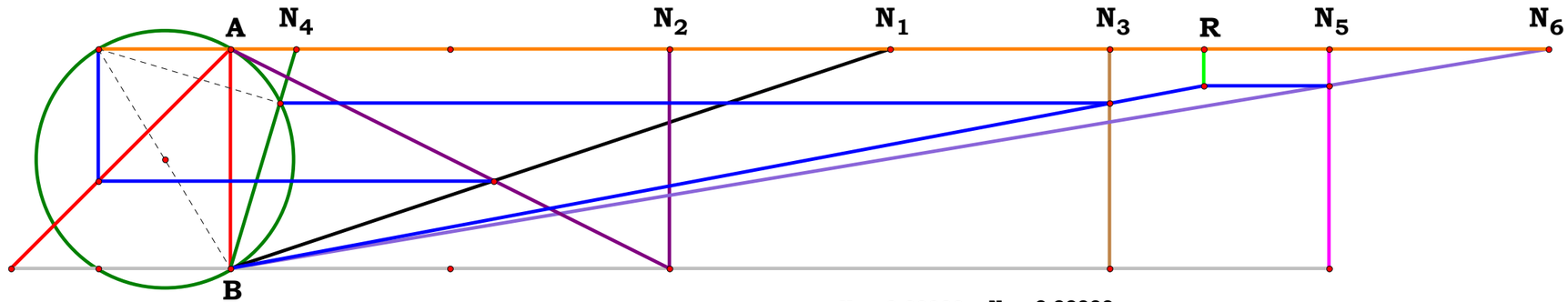
$AC := \frac{N_1}{N_1 + N_2}$ $HN_5 := \frac{N_6 - N_5}{N_6}$

$HJ := AB - HN_5$ $BN_4 := \sqrt{N_4^2 + AB^2}$

$CN_4 := N_4 + AC$ $EN_4 := \frac{N_4 \cdot CN_4}{BN_4}$

$BE := BN_4 - EN_4$ $FG := \frac{AB \cdot BE}{BN_4}$

$R := \frac{N_3 \cdot HJ}{FG}$ $R = 1.818978$



$N_1 = 3.00000$ $N_4 = 0.30000$
$N_2 = 2.00000$ $N_5 = 5.00000$
$N_3 = 4.00000$ $N_6 = 6.00000$
$R = 4.43089$

Definitions.

$R - \frac{N_3 \cdot N_5 \cdot \left(N_4^2 + 1\right)}{N_6 - AC \cdot N_4 \cdot N_6} = 0$

$\frac{N_3 \cdot N_5 \cdot (N_1 + N_2) \cdot (N_4^2 + 1)}{N_6 \cdot ((N_1 + N_2) - N_1 \cdot N_4)} - R = 0.00000$

$R - \frac{N_3 \cdot N_5 \cdot \left(N_1 + N_2\right) \cdot \left(N_4^2 + 1\right)}{N_6 \cdot \left(N_1 + N_2 - N_1 \cdot N_4\right)} = 0$

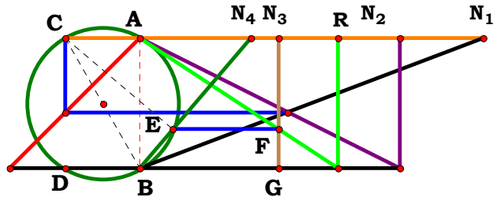
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$ $N_6 - \frac{N_u}{F} = 0$

$R - \frac{F \cdot N_u \cdot \left(D^2 + N_u^2\right) \cdot (A + B)}{\left[C \cdot D \cdot E \cdot \left[D \cdot (A + B) - B \cdot N_u\right]\right]} = 0$

$N_1 - \frac{U}{k} = 0$ $N_2 - \frac{V}{l} = 0$ $N_3 - \frac{W}{m} = 0$ $N_4 - \frac{X}{n} = 0$ $N_5 - \frac{Y}{o} = 0$ $N_6 - \frac{Z}{p} = 0$

$R - \frac{W \cdot Y \cdot p \cdot (U \cdot l + V \cdot k) \cdot \left(X^2 + n^2\right)}{Z \cdot m \cdot n \cdot o \cdot (U \cdot l \cdot n - U \cdot X \cdot l + V \cdot k \cdot n)} = 0$

4RST2AB3R7



$N_1 = 2.63194$
$N_2 = 1.99268$
$N_3 = 1.06757$
$N_4 = 0.85212$
$R = 1.52159$

Unit. $AB := 1$ Given. $N_1 := 2.63194$ $N_2 := 1.99268$ $N_3 := 1.06757$ $N_4 := .85212$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

$AC := \frac{N_1}{N_1 + N_2}$ $CN_4 := N_4 + AC$

$BN_4 := \sqrt{N_4^2 + AB^2}$ $EN_4 := \frac{N_4 \cdot CN_4}{BN_4}$

$FN_3 := \frac{AB \cdot EN_4}{BN_4}$ $R := \frac{N_3 \cdot AB}{FN_3}$

$R = 1.521591$

Definitions.

$$R - \frac{N_3 \cdot \left(N_4^2 + 1\right)}{N_4 \cdot \left(AC + N_4\right)} = 0$$

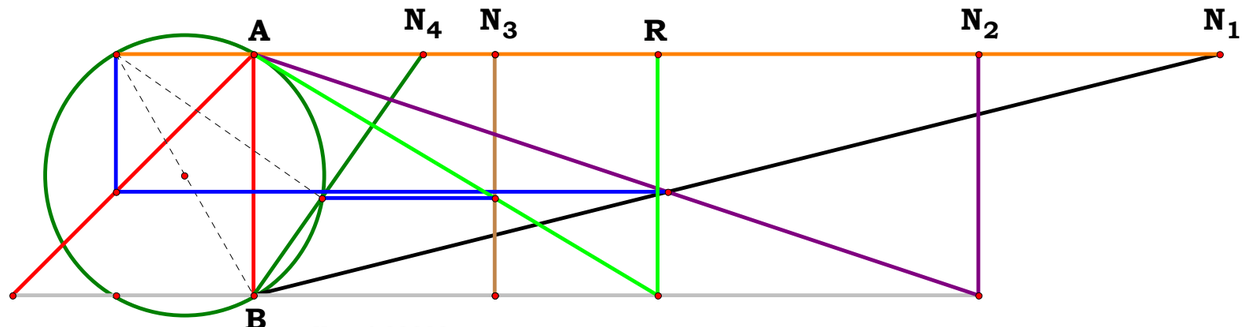
$$R - \frac{N_3 \cdot \left(N_1 + N_2\right) \cdot \left(N_4^2 + 1\right)}{N_4 \cdot \left(N_1 + N_1 \cdot N_4 + N_2 \cdot N_4\right)} = 0$$

$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{\left(D^2 + N_u^2\right) \cdot (A + B)}{C \cdot \left[B \cdot D + N_u \cdot (A + B)\right]} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

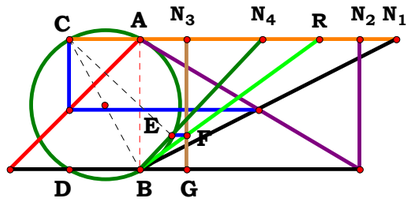
$$R - \frac{Y \cdot (W \cdot n + X \cdot m) \cdot \left(Z^2 + p^2\right)}{Z \cdot o \cdot (W \cdot Z \cdot n + X \cdot Z \cdot m + W \cdot n \cdot p)} = 0$$



$N_1 = 4.00000$
$N_2 = 3.00000$
$N_3 = 1.00000$
$N_4 = 0.70000$
$R = 1.67416$

$\frac{N_3 \cdot (N_1 + N_2) \cdot (N_4^2 + 1)}{N_4 \cdot (N_1 + N_1 \cdot N_4 + N_2 \cdot N_4)} - R = 0.00000$

4RST2AB3R8



$N_1 = 1.96362$
$N_2 = 1.68273$
$N_3 = 0.36051$
$N_4 = 0.93929$
$R = 1.37315$

Unit. $AB := 1$ Given. $N_1 := 1.96362$ $N_2 := 1.68273$ $N_3 := .36051$ $N_4 := .93929$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

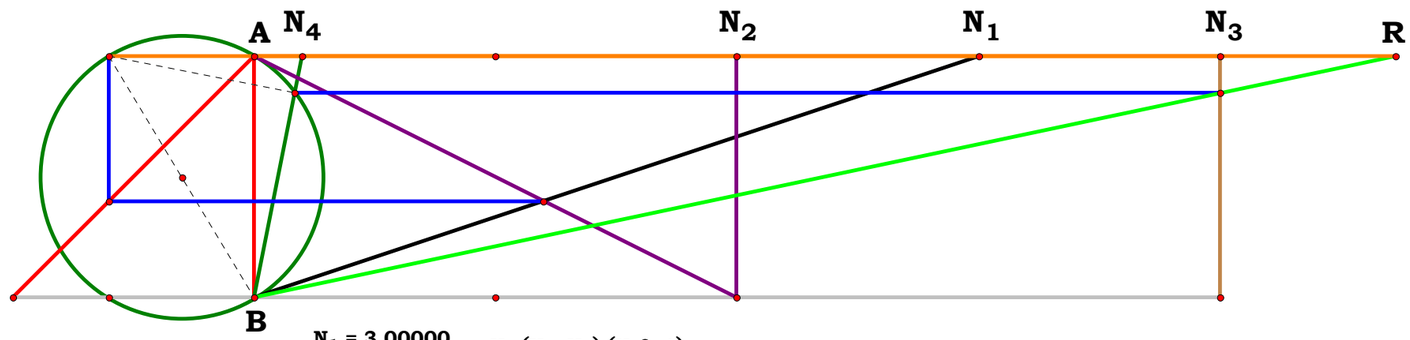
Descriptions.

$$AC := \frac{N_1}{N_1 + N_2} \qquad CN_4 := N_4 + AC$$

$$BN_4 := \sqrt{N_4^2 + AB^2} \qquad EN_4 := \frac{N_4 \cdot CN_4}{BN_4}$$

$$BE := BN_4 - EN_4 \qquad R := \frac{N_3 \cdot BN_4}{BE}$$

$R = 1.373144$



$N_1 = 3.00000$
$N_2 = 2.00000$
$N_3 = 4.00000$
$N_4 = 0.20000$
$R = 4.72727$

$$\frac{N_3 \cdot (N_1 + N_2) \cdot (N_4^2 + 1)}{(N_1 + N_2) - N_1 \cdot N_4} - R = 0.00000$$

Definitions.

$$R - \frac{N_3 \cdot \left(N_4^2 + 1\right)}{1 - AC \cdot N_4} = 0$$

$$R - \frac{N_3 \cdot (N_1 + N_2) \cdot \left(N_4^2 + 1\right)}{N_1 + N_2 - N_1 \cdot N_4} = 0$$

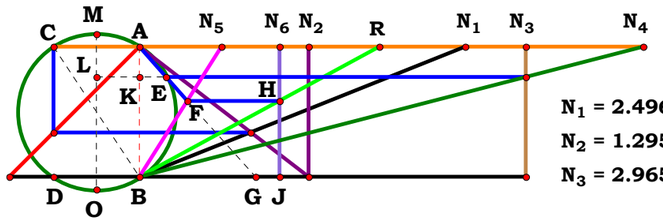
$$N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0 \quad N_4 - \frac{N_u}{D} = 0$$

$$R - \frac{N_u \cdot \left(D^2 + N_u^2\right) \cdot (A + B)}{C \cdot D \cdot \left[D \cdot (A + B) - B \cdot N_u\right]} = 0$$

$$N_1 - \frac{W}{m} = 0 \quad N_2 - \frac{X}{n} = 0 \quad N_3 - \frac{Y}{o} = 0 \quad N_4 - \frac{Z}{p} = 0$$

$$R - \frac{Y \cdot (W \cdot n + X \cdot m) \cdot \left(Z^2 + p^2\right)}{o \cdot p \cdot (W \cdot n \cdot p - W \cdot Z \cdot n + X \cdot m \cdot p)} = 0$$

4RST2AB3R9



$N_1 = 2.49634$ $N_2 = 1.29530$ $N_3 = 2.96599$ $N_4 = 3.86440$ $N_5 = 0.62958$ $N_6 = 1.07618$ $R = 1.83953$

Unit. $AB := 1$ **Given.** $N_1 := 2.49634$ $N_2 := 1.29530$ $N_3 := 2.96599$ $N_4 := 3.86440$ $N_5 := .62958$ $N_6 := 1.07618$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $F := \frac{N_u}{N_6}$

$U := 18$ $V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$k := \frac{U}{N_1}$ $l := \frac{V}{N_2}$ $m := \frac{W}{N_3}$ $n := \frac{X}{N_4}$ $o := \frac{Y}{N_5}$ $p := \frac{Z}{N_6}$

Descriptions.

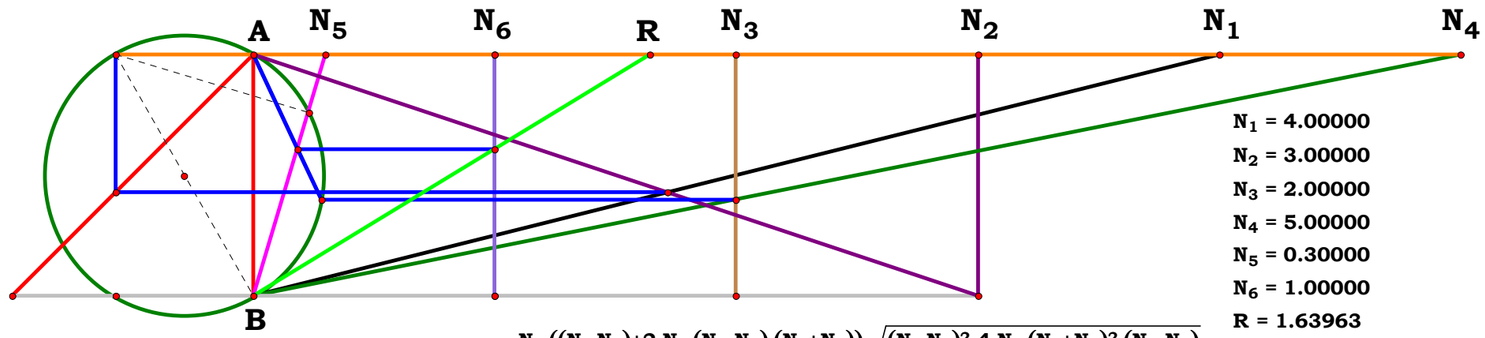
$AC := \frac{N_1}{N_1 + N_2}$ $AK := \frac{N_4 - N_3}{N_4}$

$MO := \sqrt{AB^2 + AC^2}$ $ML := AK + \frac{MO - AB}{2}$

$EL := \sqrt{ML \cdot (MO - ML)}$ $EK := EL - \frac{AC}{2}$

$BG := \frac{EK \cdot AB}{AK}$ $HJ := \frac{BG}{BG + N_5}$

$R := \frac{N_6}{HJ}$ $R = 1.839537$



$N_1 = 4.00000$ $N_2 = 3.00000$ $N_3 = 2.00000$ $N_4 = 5.00000$ $N_5 = 0.30000$ $N_6 = 1.00000$ $R = 1.63963$

$\frac{N_6 \cdot ((N_1 \cdot N_4) + 2 \cdot N_5 \cdot (N_3 - N_4) \cdot (N_1 + N_2)) - \sqrt{(N_1 \cdot N_4)^2 - 4 \cdot N_3 \cdot (N_1 + N_2)^2 \cdot (N_3 - N_4)}}{(N_1 \cdot N_4) - \sqrt{(N_1 \cdot N_4)^2 - 4 \cdot N_3 \cdot (N_1 + N_2)^2 \cdot (N_3 - N_4)}} - R = 0.00000$

Definitions.

$$R - \frac{N_6 \cdot \left[\sqrt{N_4^2} \cdot \left[AC \cdot N_4 + 2 \cdot N_5 \cdot (N_3 - N_4)\right] - N_4 \cdot \sqrt{AC^2 \cdot N_4^2 - 4 \cdot N_3 \cdot (N_3 - N_4)}\right]}{N_4 \cdot \left[AC \cdot \sqrt{N_4^2} - \sqrt{AC^2 \cdot N_4^2 - 4 \cdot N_3 \cdot (N_3 - N_4)}\right]} = 0$$

$$R - \frac{N_6 \cdot \left[N_1 \cdot N_4 - \sqrt{N_1^2 \cdot N_4^2 - 4 \cdot N_3 \cdot (N_1 + N_2)^2 \cdot (N_3 - N_4)} + 2 \cdot N_5 \cdot (N_3 - N_4) \cdot (N_1 + N_2)\right]}{N_1 \cdot N_4 - \sqrt{N_1^2 \cdot N_4^2 - 4 \cdot N_3 \cdot (N_1 + N_2)^2 \cdot (N_3 - N_4)}} = 0$$

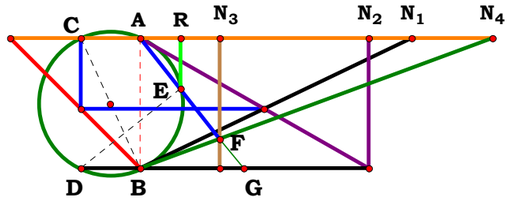
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$ $N_6 - \frac{N_u}{F} = 0$

$$R - \frac{N_u \cdot \left[E \cdot \sqrt{B^2 \cdot C^2 + 4 \cdot D \cdot (A + B)^2 \cdot (C - D)} + \left[2 \cdot N_u \cdot (C - D) \cdot (A + B) - B \cdot C \cdot E\right]\right]}{E \cdot F \cdot \left[\sqrt{B^2 \cdot C^2 + 4 \cdot D \cdot (A + B)^2 \cdot (C - D)} - B \cdot C\right]} = 0$$

$N_1 - \frac{U}{k} = 0$ $N_2 - \frac{V}{l} = 0$ $N_3 - \frac{W}{m} = 0$ $N_4 - \frac{X}{n} = 0$ $N_5 - \frac{Y}{o} = 0$ $N_6 - \frac{Z}{p} = 0$

$$R - \frac{Z \cdot \left[X \cdot m \cdot (U \cdot l \cdot o - 2 \cdot V \cdot Y \cdot k - 2 \cdot U \cdot Y \cdot l) + 2 \cdot W \cdot Y \cdot n \cdot (U \cdot l + V \cdot k) - o \cdot \sqrt{U^2 \cdot l^2 \cdot m^2 \cdot X^2 + 4 \cdot W \cdot n \cdot (U \cdot l + V \cdot k)^2 \cdot (X \cdot m - W \cdot n)}\right]}{o \cdot p \cdot \left[U \cdot X \cdot l \cdot m - \sqrt{U^2 \cdot l^2 \cdot m^2 \cdot X^2 + 4 \cdot W \cdot n \cdot (U \cdot l + V \cdot k)^2 \cdot (X \cdot m - W \cdot n)}\right]} = 0$$

4RST2AB4R0



$N_1 = 2.07985$
$N_2 = 1.75053$
$N_3 = 0.61234$
$N_4 = 2.70210$
$R = 0.31057$

Unit. $AB := 1$ **Given.** $N_1 := 2.07985$ $N_2 := 1.75053$ $N_3 := .61234$ $N_4 := 2.70210$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

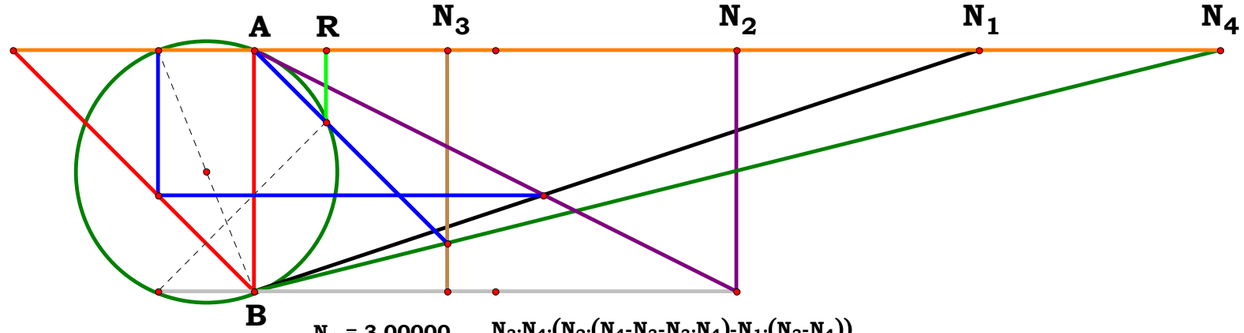
Descriptions.

$AC := \frac{N_2}{N_1 + N_2}$ $FN_3 := \frac{N_4 - N_3}{N_4}$ $AF := \sqrt{N_3^2 + FN_3^2}$

$AG := \frac{AF \cdot AB}{FN_3}$ $BG := \frac{N_3 \cdot AB}{FN_3}$ $DG := BG + AC$

$EG := \frac{N_3 \cdot DG}{AF}$ $AE := AG - EG$

$R := \frac{N_3 \cdot AE}{AF}$ $R = 0.310572$



$N_1 = 3.00000$
$N_2 = 2.00000$
$N_3 = 0.80000$
$N_4 = 4.00000$
$R = 0.30000$

$\frac{N_3 \cdot N_4 \cdot (N_2 \cdot (N_4 - N_3 - N_3 \cdot N_4) - N_1 \cdot (N_3 - N_4))}{(N_1 + N_2) \cdot ((N_4^2 + 1) \cdot N_3^2 - N_4 \cdot (2 \cdot N_3 - N_4))} - R = 0.00000$

Definitions.

$R - \frac{N_3 \cdot N_4 \cdot (N_4 - N_3 - AC \cdot N_3 \cdot N_4)}{N_3^2 \cdot N_4^2 + N_3^2 - 2 \cdot N_3 \cdot N_4 + N_4^2} = 0$

$R - \frac{N_3 \cdot N_4 \cdot [N_2 \cdot (N_4 - N_3 - N_3 \cdot N_4) - N_1 \cdot (N_3 - N_4)]}{(N_1 + N_2) \cdot [(N_4^2 + 1) \cdot N_3^2 - N_4 \cdot (2 \cdot N_3 - N_4)]} = 0$

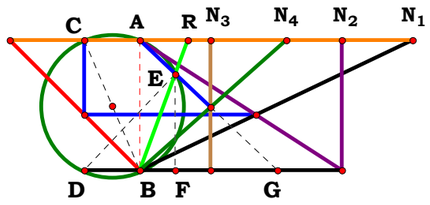
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$R - \frac{N_u \cdot [(C - D) \cdot (A + B) - A \cdot N_u]}{(A + B) \cdot [(C - D)^2 + N_u^2]} = 0$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$R - \frac{Y \cdot Z \cdot [-W \cdot n \cdot (Y \cdot p - Z \cdot o) - X \cdot Y \cdot m \cdot (Z + p) + X \cdot Z \cdot m \cdot o]}{(W \cdot n + X \cdot m) \cdot (Y^2 \cdot Z^2 + Y^2 \cdot p^2 - 2 \cdot Y \cdot Z \cdot o \cdot p + Z^2 \cdot o^2)} = 0$

4RST2AB4R1



$N_1 = 2.08954$
$N_2 = 1.54713$
$N_3 = 0.54454$
$N_4 = 1.12332$
$R = 0.37131$

Unit. $AB := 1$ **Given.** $N_1 := 2.08954$ $N_2 := 1.54713$ $N_3 := .54454$ $N_4 := 1.12332$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

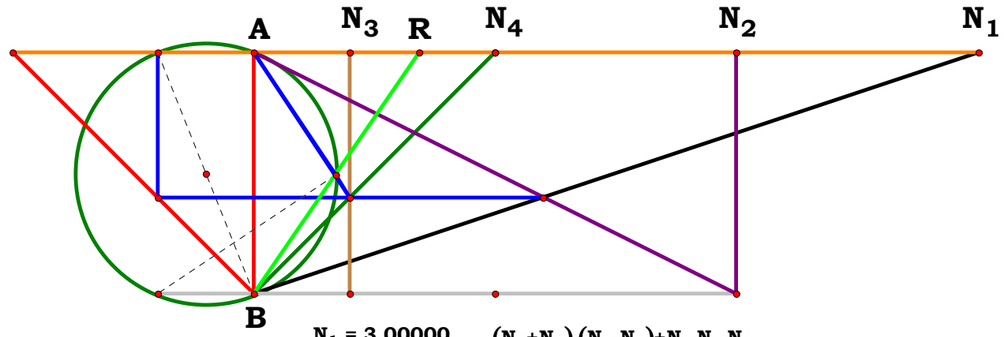
$AC := \frac{N_2}{N_1 + N_2}$ $GN_3 := \frac{N_4 - N_3}{N_4}$ $AG := \sqrt{N_3^{\,2} + GN_3^{\,2}}$

$BH := \frac{N_3 \cdot AB}{GN_3}$ $DH := BH + AC$ $EH := \frac{N_3 \cdot DH}{AG}$

$FH := \frac{N_3 \cdot EH}{AG}$ $BF := BH - FH$

$EF := \frac{AB \cdot FH}{BH}$ $R := \frac{BF \cdot AB}{EF}$

$R = 0.371306$



$N_1 = 3.00000$
$N_2 = 2.00000$
$N_3 = 0.40000$
$N_4 = 1.00000$
$R = 0.68750$

$\frac{(N_1+N_2)\cdot(N_3-N_4)+N_2\cdot N_3\cdot N_4}{N_2\cdot(N_3-N_4)-N_3\cdot N_4\cdot(N_1+N_2)} - R = 0.00000$

Definitions.

$$R - \frac{N_4 - N_3 - AC \cdot N_3 \cdot N_4}{AC \cdot N_4 - AC \cdot N_3 + N_3 \cdot N_4} = 0$$

$$R - \frac{(N_1 + N_2) \cdot (N_3 - N_4) + N_2 \cdot N_3 \cdot N_4}{N_2 \cdot (N_3 - N_4) - N_3 \cdot N_4 \cdot (N_1 + N_2)} = 0$$

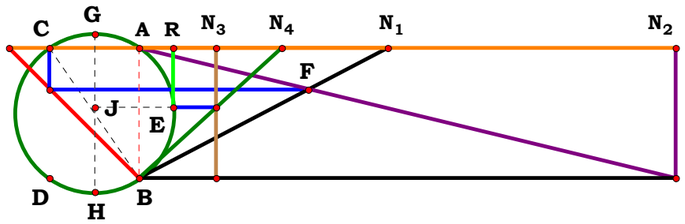
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{(C - D) \cdot (A + B) - A \cdot N_u}{A \cdot (C - D) + N_u \cdot (A + B)} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{W \cdot n \cdot (Z \cdot o - Y \cdot p) - X \cdot m \cdot (Y \cdot Z + Y \cdot p - Z \cdot o)}{X \cdot m \cdot (Y \cdot Z - Y \cdot p + Z \cdot o) + W \cdot Y \cdot Z \cdot n} = 0$$

4RST2AB4R2



$N_1 = 1.90551$
$N_2 = 4.11387$
$N_3 = 0.59297$
$N_4 = 1.09426$
$R = 0.26245$

Unit. $AB := 1$ **Given.** $N_1 := 1.90551$ $N_2 := 4.11387$ $N_3 := .59297$ $N_4 := 1.09426$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

$AC := \frac{N_2}{N_1 + N_2}$ $GH := \sqrt{AB^2 + AC^2}$ $GJ := \frac{N_4 - N_3}{N_4} + \frac{GH - AB}{2}$

$EJ := \sqrt{GJ \cdot (GH - GJ)}$ $R := EJ - \frac{AC}{2}$ $R = 0.262447$

Definitions.

$$R - \frac{\sqrt{AC^2 \cdot {N_4}^2 - 4 \cdot {N_3}^2 + 4 \cdot N_3 \cdot N_4} - AC \cdot \sqrt{{N_4}^2}}{2 \cdot \sqrt{{N_4}^2}} = 0$$

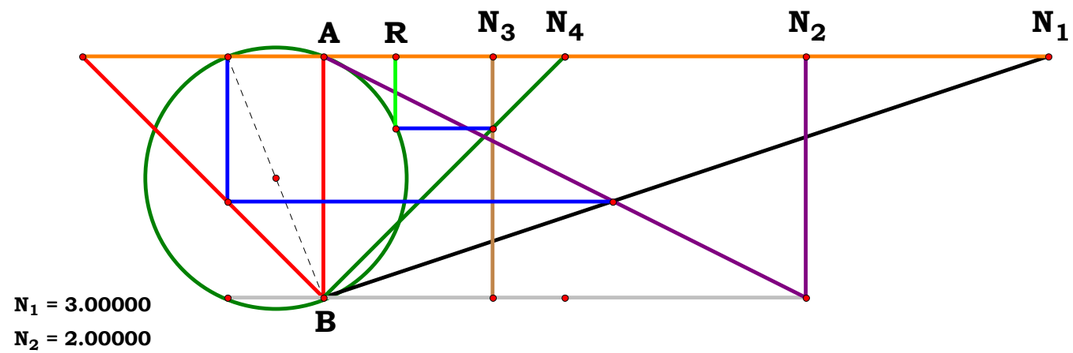
$$R - \frac{\sqrt{4 \cdot N_3 \cdot (N_1 + N_2)^2 \cdot (N_4 - N_3) + (N_2 \cdot N_4)^2} - N_2 \cdot N_4}{2 \cdot (N_1 + N_2) \cdot N_4} = 0$$

$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{\sqrt{A^2 \cdot C^2 + 4 \cdot D \cdot (A + B)^2 \cdot (C - D)} - A \cdot C}{2 \cdot (A + B) \cdot C} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

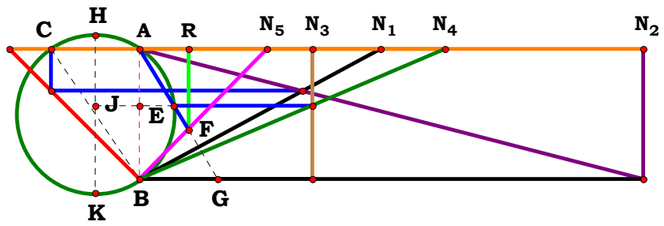
$$R - \frac{\sqrt{X^2 \cdot m^2 \cdot o^2 \cdot Z^2 + 4 \cdot Y \cdot p \cdot (W \cdot n + X \cdot m)^2 \cdot (Z \cdot o - Y \cdot p)} - X \cdot Z \cdot m \cdot o}{2 \cdot Z \cdot o \cdot (W \cdot n + X \cdot m)} = 0$$



$N_1 = 3.00000$
$N_2 = 2.00000$
$N_3 = 0.70000$
$N_4 = 1.00000$
$R = 0.30000$

$$\frac{\sqrt{4 \cdot N_3 \cdot (N_1 + N_2)^2 \cdot (N_4 - N_3) + (N_2 \cdot N_4)^2} - N_2 \cdot N_4}{2 \cdot (N_1 + N_2) \cdot N_4} - R = 0.00000$$

4RST2AB4R3



$N_1 = 1.84739$
$N_2 = 3.86203$
$N_3 = 1.32909$
$N_4 = 2.34373$
$N_5 = 0.97826$
$R = 0.37362$

Unit. $AB := 1$ **Given.** $N_1 := 1.84739$ $N_2 := 3.86203$ $N_3 := 1.32909$

$N_4 := 2.34373$ $N_5 := .97826$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$

$V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

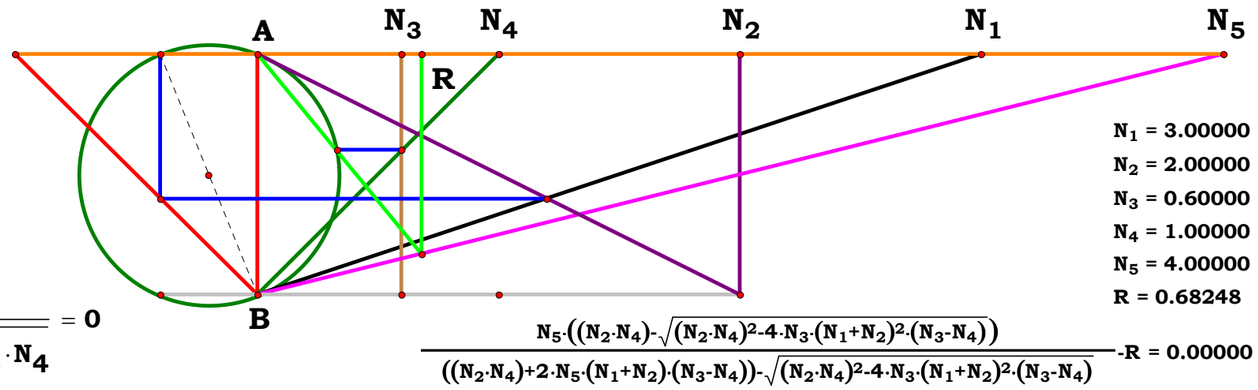
$l := \frac{V}{N_1}$ $m := \frac{W}{N_2}$ $n := \frac{X}{N_3}$ $o := \frac{Y}{N_4}$ $p := \frac{Z}{N_5}$

Descriptions.

$AC := \frac{N_2}{N_1 + N_2}$ $HK := \sqrt{AB^2 + AC^2}$ $AL := \frac{N_4 - N_3}{N_4}$

$HJ := AL + \frac{HK - AB}{2}$ $EJ := \sqrt{HJ \cdot (HK - HJ)}$

$BG := \frac{\left(EJ - \frac{AC}{2}\right) \cdot AB}{AL}$ $R := \frac{N_5 \cdot BG}{N_5 + BG}$ $R = 0.37362$



$N_1 = 3.00000$
$N_2 = 2.00000$
$N_3 = 0.60000$
$N_4 = 1.00000$
$N_5 = 4.00000$
$R = 0.68248$

$$\frac{N_5 \cdot \left((N_2 \cdot N_4) - \sqrt{(N_2 \cdot N_4)^2 - 4 \cdot N_3 \cdot (N_1 + N_2)^2 \cdot (N_3 - N_4)}\right)}{\left((N_2 \cdot N_4) + 2 \cdot N_5 \cdot (N_1 + N_2) \cdot (N_3 - N_4)\right) - \sqrt{(N_2 \cdot N_4)^2 - 4 \cdot N_3 \cdot (N_1 + N_2)^2 \cdot (N_3 - N_4)}} - R = 0.00000$$

Definitions.

$$R - \frac{N_4 \cdot N_5 \cdot \left(AC \cdot \sqrt{N_4^2} - \sqrt{AC^2 \cdot N_4^2 - 4 \cdot N_3^2 + 4 \cdot N_3 \cdot N_4}\right)}{\sqrt{N_4^2} \cdot \left(AC \cdot N_4 + 2 \cdot N_3 \cdot N_5 - 2 \cdot N_4 \cdot N_5\right) - N_4 \cdot \sqrt{AC^2 \cdot N_4^2 - 4 \cdot N_3^2 + 4 \cdot N_3 \cdot N_4}} = 0$$

$$R - \frac{N_5 \cdot \left[N_2 \cdot N_4 - \sqrt{N_2^2 \cdot N_4^2 - 4 \cdot N_3 \cdot \left(N_1 + N_2\right)^2 \cdot \left(N_3 - N_4\right)}\right]}{N_2 \cdot N_4 + 2 \cdot N_5 \cdot \left(N_3 - N_4\right) \cdot \left(N_1 + N_2\right) - \sqrt{N_2^2 \cdot N_4^2 - 4 \cdot N_3 \cdot \left(N_1 + N_2\right)^2 \cdot \left(N_3 - N_4\right)}} = 0$$

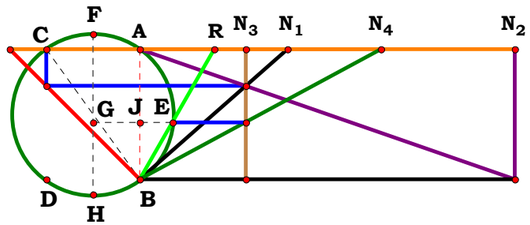
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$

$$R - \frac{N_u \cdot \left[A \cdot C - \sqrt{A^2 \cdot C^2 + 4 \cdot D \cdot (A + B)^2 \cdot (C - D)}\right]}{A \cdot C \cdot E - E \cdot \sqrt{A^2 \cdot C^2 + 4 \cdot D \cdot (A + B)^2 \cdot (C - D)} - 2 \cdot N_u \cdot (C - D) \cdot (A + B)} = 0$$

$N_1 - \frac{V}{l} = 0$ $N_2 - \frac{W}{m} = 0$ $N_3 - \frac{X}{n} = 0$ $N_4 - \frac{Y}{o} = 0$ $N_5 - \frac{Z}{p} = 0$

$$R - \frac{Z \cdot \left[W \cdot Y \cdot l \cdot n - \sqrt{W^2 \cdot l^2 \cdot n^2 \cdot Y^2 + 4 \cdot X \cdot o \cdot (V \cdot m + W \cdot l)^2 \cdot (Y \cdot n - X \cdot o)}\right]}{2 \cdot Z \cdot (X \cdot o - Y \cdot n) \cdot (V \cdot m + W \cdot l) + W \cdot Y \cdot l \cdot n \cdot p - p \cdot \sqrt{W^2 \cdot l^2 \cdot n^2 \cdot Y^2 + 4 \cdot X \cdot o \cdot (V \cdot m + W \cdot l)^2 \cdot (Y \cdot n - X \cdot o)}} = 0$$

4RST2AB4R4



$N_1 = 1.13064$
$N_2 = 2.87408$
$N_3 = 0.81574$
$N_4 = 1.84976$
$R = 0.57544$

Unit. $AB := 1$ Given. $N_1 := 1.13064$ $N_2 := 2.87408$ $N_3 := .81574$ $N_4 := 1.84976$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

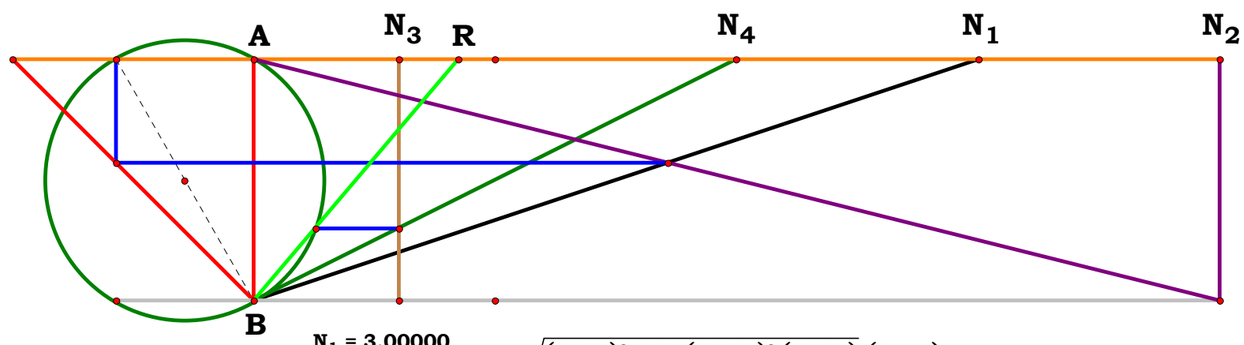
$AC := \frac{N_2}{N_1 + N_2}$ $AE := \frac{N_4 - N_3}{N_4}$

$BE := AB - AE$ $FH := \sqrt{AB^2 + AC^2}$

$FG := AE + \frac{FH - AB}{2}$ $EG := \sqrt{FG \cdot (FH - FG)}$

$EJ := EG - \frac{AC}{2}$ $R := \frac{EJ \cdot AB}{BE}$

$R = 0.575437$



$N_1 = 3.00000$
$N_2 = 4.00000$
$N_3 = 0.60000$
$N_4 = 2.00000$
$R = 0.84772$

$\frac{\sqrt{(N_2 \cdot N_4)^2 - 4 \cdot N_3 \cdot (N_1 + N_2)^2 \cdot (N_3 - N_4)} - (N_2 \cdot N_4)}{2 \cdot N_3 \cdot (N_1 + N_2)} - R = 0.00000$

Definitions.

$$R - \frac{N_4 \cdot \sqrt{AC^2 \cdot N_4^2 - 4 \cdot N_3^2 + 4 \cdot N_3 \cdot N_4} - AC \cdot N_4 \cdot \sqrt{N_4^2}}{2 \cdot N_3 \cdot \sqrt{N_4^2}} = 0$$

$$R - \frac{\sqrt{N_2^2 \cdot N_4^2 - 4 \cdot N_3 \cdot (N_1 + N_2)^2 \cdot (N_3 - N_4)} - N_2 \cdot N_4}{2 \cdot (N_1 + N_2) \cdot N_3} = 0$$

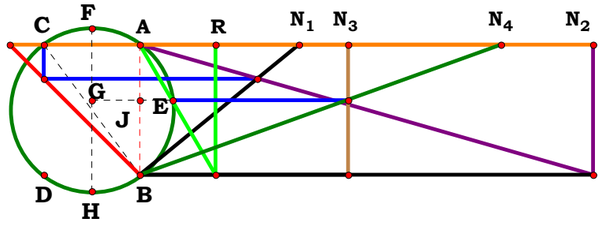
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{\sqrt{A^2 \cdot C^2 + 4 \cdot D \cdot (A + B)^2 \cdot (C - D)} - A \cdot C}{2 \cdot (A + B) \cdot D} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{\sqrt{4 \cdot Y \cdot p \cdot (W \cdot n + X \cdot m)^2 \cdot (Z \cdot o - Y \cdot p) + X^2 \cdot Z^2 \cdot m^2 \cdot o^2} - X \cdot Z \cdot m \cdot o}{2 \cdot Y \cdot p \cdot (W \cdot n + X \cdot m)} = 0$$

4RST2AB4R5



$N_1 = 1.21782$
$N_2 = 3.47460$
$N_3 = 1.60029$
$N_4 = 2.76991$
$R = 0.58505$

Unit. $AB := 1$ Given. $N_1 := 1.21782$ $N_2 := 3.47460$ $N_3 := 1.60029$ $N_4 := 2.76991$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

$AC := \frac{N_2}{N_1 + N_2}$ $AJ := \frac{N_4 - N_3}{N_4}$ $FH := \sqrt{AB^2 + AC^2}$

$FG := AJ + \frac{FH - AB}{2}$ $EG := \sqrt{FG \cdot (FH - FG)}$

$EJ := EG - \frac{AC}{2}$ $R := \frac{EJ \cdot AB}{AJ}$ $R = 0.585047$

Definitions.

$$R - \frac{N_4 \cdot \left(AC \cdot \sqrt{N_4^2} - \sqrt{AC^2 \cdot N_4^2 - 4 \cdot N_3^2 + 4 \cdot N_3 \cdot N_4}\right)}{2 \cdot (N_3 - N_4) \cdot \sqrt{N_4^2}} = 0$$

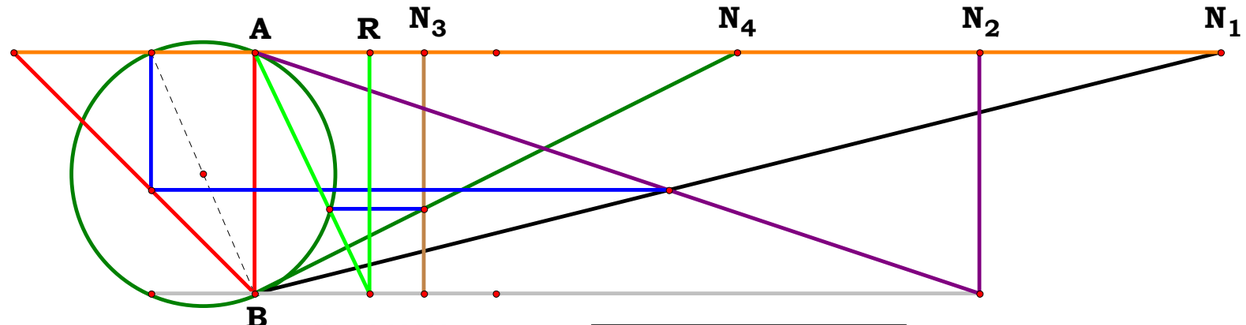
$$R - \frac{N_2 \cdot N_4 - \sqrt{N_2^2 \cdot N_4^2 - 4 \cdot N_3 \cdot (N_1 + N_2)^2 \cdot (N_3 - N_4)}}{2 \cdot (N_1 + N_2) \cdot (N_3 - N_4)} = 0$$

$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{\sqrt{A^2 \cdot C^2 + 4 \cdot D \cdot (A + B)^2 \cdot (C - D)} - A \cdot C}{2 \cdot (A + B) \cdot (C - D)} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

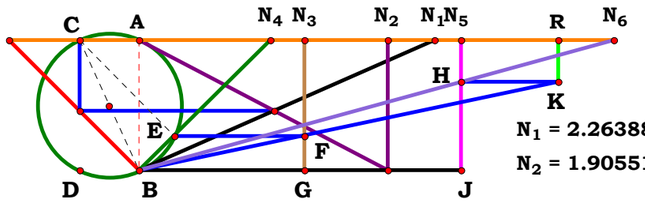
$$R - \frac{X \cdot Z \cdot m \cdot o - \sqrt{X^2 \cdot m^2 \cdot o^2 \cdot Z^2 + 4 \cdot Y \cdot p \cdot (W \cdot n + X \cdot m)^2 \cdot (Z \cdot o - Y \cdot p)}}{2 \cdot (W \cdot n + X \cdot m) \cdot (Y \cdot p - Z \cdot o)} = 0$$



$N_1 = 4.00000$
$N_2 = 3.00000$
$N_3 = 0.70000$
$N_4 = 2.00000$
$R = 0.47478$

$$\frac{(N_2 \cdot N_4) - \sqrt{(N_2 \cdot N_4)^2 - 4 \cdot N_3 \cdot (N_1 + N_2)^2 \cdot (N_3 - N_4)}}{2 \cdot (N_1 + N_2) \cdot (N_3 - N_4)} - R = 0.00000$$

4RST2AB6R6



$N_3 = 1.27097$
$N_4 = 1.00709$
$N_5 = 2.46987$
$N_6 = 3.64185$
$R = 3.21676$

$N_1 = 2.26388$
$N_2 = 1.90551$

Unit. $AB := 1$ Given. $N_1 := 2.26388$ $N_2 := 1.90551$ $N_3 := 1.27097$

$N_4 := 1.00709$ $N_5 := 2.46987$ $N_6 := 3.64185$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $F := \frac{N_u}{N_6}$

$U := 18$ $V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$k := \frac{U}{N_1}$ $l := \frac{V}{N_2}$ $m := \frac{W}{N_3}$ $n := \frac{X}{N_4}$ $o := \frac{Y}{N_5}$ $p := \frac{Z}{N_6}$

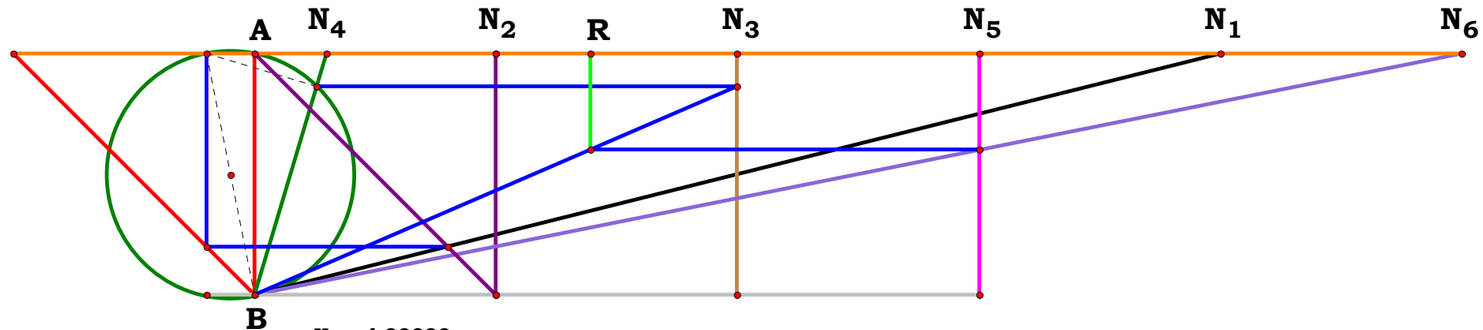
Descriptions.

$AC := \frac{N_2}{N_1 + N_2}$ $HN_5 := \frac{N_6 - N_5}{N_6}$ $HJ := AB - HN_5$

$BN_4 := \sqrt{N_4^2 + AB^2}$ $CN_4 := N_4 + AC$

$EN_4 := \frac{N_4 \cdot CN_4}{BN_4}$ $BE := BN_4 - EN_4$

$FG := \frac{AB \cdot BE}{BN_4}$ $R := \frac{N_3 \cdot HJ}{FG}$ $R = 3.216733$



$N_1 = 4.00000$
$N_2 = 1.00000$
$N_3 = 2.00000$
$N_4 = 0.30000$
$N_5 = 3.00000$
$N_6 = 5.00000$
$R = 1.39149$

$\frac{N_3 \cdot N_5 \cdot (N_1+N_2) \cdot (N_4^2+1)}{N_6 \cdot ((N_1+N_2) - N_2 \cdot N_4)} - R = 0.00000$

Definitions.

$R - \frac{N_3 \cdot N_5 \cdot \left(N_4^2 + 1\right)}{N_6 - AC \cdot N_4 \cdot N_6} = 0$

$R - \frac{N_3 \cdot N_5 \cdot \left(N_1 + N_2\right) \cdot \left(N_4^2 + 1\right)}{N_6 \cdot \left(N_1 + N_2 - N_2 \cdot N_4\right)} = 0$

$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$

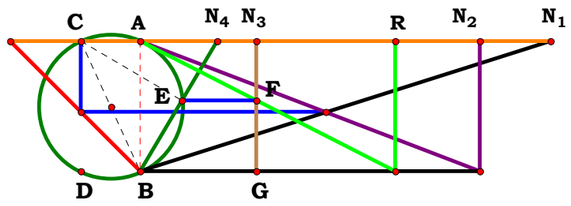
$N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$ $N_6 - \frac{N_u}{F} = 0$

$R - \frac{F \cdot N_u \cdot \left(D^2 + N_u^2\right) \cdot (A + B)}{C \cdot D \cdot E \cdot \left[D \cdot (A + B) - A \cdot N_u\right]} = 0$

$N_1 - \frac{U}{k} = 0$ $N_2 - \frac{V}{l} = 0$ $N_3 - \frac{W}{m} = 0$ $N_4 - \frac{X}{n} = 0$ $N_5 - \frac{Y}{o} = 0$ $N_6 - \frac{Z}{p} = 0$

$R - \frac{W \cdot Y \cdot p \cdot (U \cdot l + V \cdot k) \cdot \left(N_4^2 + 1\right)}{Z \cdot m \cdot o \cdot \left(U \cdot l + V \cdot k - N_4 \cdot V \cdot k\right)} = 0$

4RST2AB4R7



$N_1 = 3.14529$
$N_2 = 2.60288$
$N_3 = 0.89323$
$N_4 = 0.59060$
$R = 1.95505$

Unit. $AB := 1$ Given. $N_1 := 3.14529$ $N_2 := 2.60288$ $N_3 := .89323$ $N_4 := .59060$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

$AC := \frac{N_2}{N_1 + N_2}$ $CN_4 := N_4 + AC$

$BN_4 := \sqrt{N_4^2 + AB^2}$ $EN_4 := \frac{N_4 \cdot CN_4}{BN_4}$

$FN_3 := \frac{AB \cdot EN_4}{BN_4}$ $R := \frac{N_3 \cdot AB}{FN_3}$

$R = 1.955066$

Definitions.

$R - \frac{N_3 \cdot \left(N_4^2 + 1\right)}{N_4 \cdot (AC + N_4)} = 0$

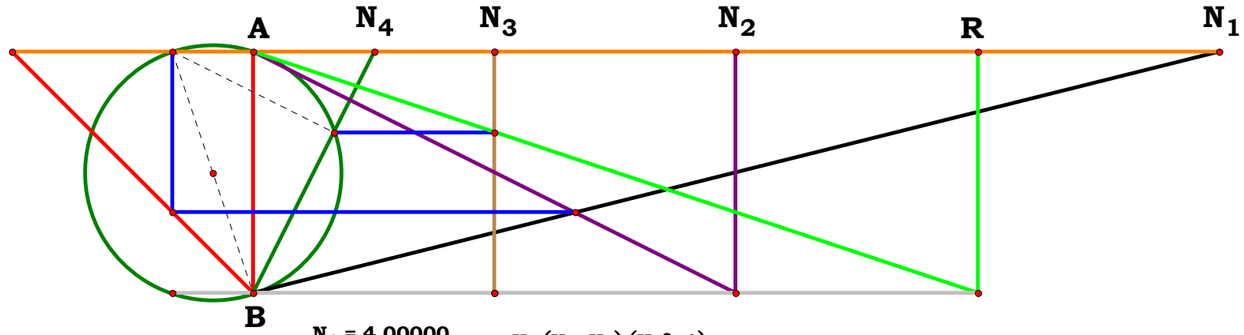
$R - \frac{N_3 \cdot (N_1 + N_2) \cdot \left(N_4^2 + 1\right)}{N_4 \cdot \left(N_2 + N_1 \cdot N_4 + N_2 \cdot N_4\right)} = 0$

$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$R - \frac{\left(D^2 + N_u^2\right) \cdot (A + B)}{A \cdot C \cdot D + C \cdot N_u \cdot (A + B)} = 0$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

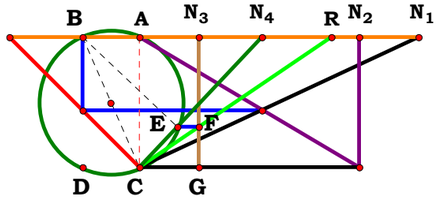
$R - \frac{Y \cdot (W \cdot n + X \cdot m) \cdot \left(Z^2 + p^2\right)}{Z \cdot o \cdot (W \cdot Z \cdot n + X \cdot Z \cdot m + X \cdot m \cdot p)} = 0$



$N_1 = 4.00000$
$N_2 = 2.00000$
$N_3 = 1.00000$
$N_4 = 0.50000$
$R = 3.00000$

$\frac{N_3 \cdot (N_1 + N_2) \cdot \left(N_4^2 + 1\right)}{N_4 \cdot \left(N_2 + N_1 \cdot N_4 + N_2 \cdot N_4\right)} - R = 0.00000$

4RST2AB4R8



$N_1 = 2.13797$
$N_2 = 1.68273$
$N_3 = 0.45737$
$N_4 = 0.93929$
$R = 1.46831$

Unit. $AB := 1$ Given. $N_1 := 2.13797$ $N_2 := 1.68273$ $N_3 := .45737$ $N_4 := .93929$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

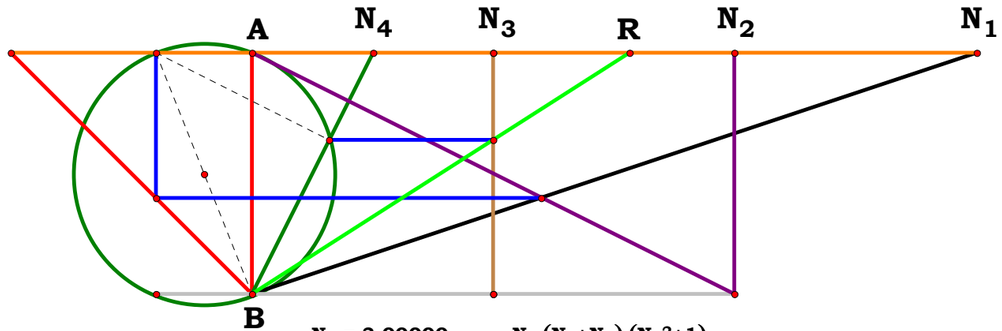
Descriptions.

$AC := \frac{N_2}{N_1 + N_2}$ $CN_4 := N_4 + AC$

$BN_4 := \sqrt{N_4^2 + AB^2}$ $EN_4 := \frac{N_4 \cdot CN_4}{BN_4}$

$BE := BN_4 - EN_4$ $R := \frac{N_3 \cdot BN_4}{BE}$

$R = 1.468313$



$N_1 = 3.00000$
$N_2 = 2.00000$
$N_3 = 1.00000$
$N_4 = 0.50000$
$R = 1.56250$

$\frac{N_3 \cdot (N_1+N_2) \cdot (N_4^2+1)}{(N_1+N_2) - N_2 \cdot N_4} - R = 0.00000$

Definitions.

$R - \frac{N_3 \cdot (N_4^2 + 1)}{1 - AC \cdot N_4} = 0$

$R - \frac{N_3 \cdot (N_1 + N_2) \cdot (N_4^2 + 1)}{N_1 + N_2 - N_2 \cdot N_4} = 0$

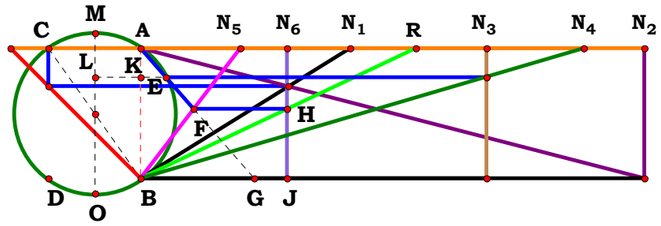
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$R - \frac{N_u \cdot (D^2 + N_u^2) \cdot (A + B)}{C \cdot D \cdot [D \cdot (A + B) - A \cdot N_u]} = 0$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$R - \frac{Y \cdot (W \cdot n + X \cdot m) \cdot (Z^2 + p^2)}{o \cdot p \cdot (W \cdot n \cdot p - X \cdot Z \cdot m + X \cdot m \cdot p)} = 0$

4RST2AB4R9



$N_1 = 1.60525$ $N_4 = 3.39948$
$N_2 = 3.86203$ $N_5 = 0.76518$
$N_3 = 2.65604$ $N_6 = 1.12355$
$R = 2.11046$

Unit. $AB := 1$ **Given.** $N_1 := 1.60525$ $N_2 := 3.86203$ $N_3 := 2.65604$

$N_4 := 3.39948$ $N_5 := .76518$ $N_6 := 1.12355$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $F := \frac{N_u}{N_6}$

$U := 18$ $V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$k := \frac{U}{N_1}$ $l := \frac{V}{N_2}$ $m := \frac{W}{N_3}$ $n := \frac{X}{N_4}$ $o := \frac{Y}{N_5}$ $p := \frac{Z}{N_6}$

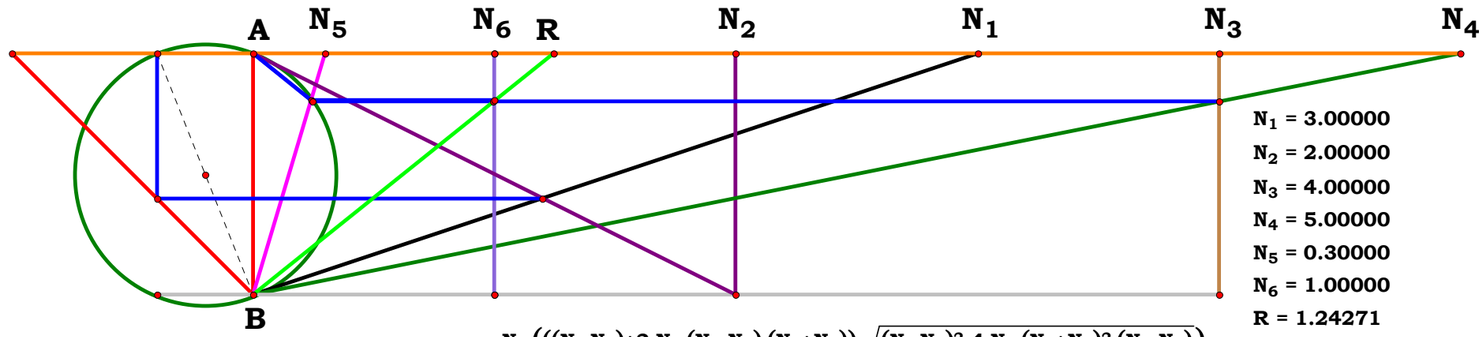
Descriptions.

$AC := \frac{N_2}{N_1 + N_2}$ $AK := \frac{N_4 - N_3}{N_4}$ $MO := \sqrt{AB^2 + AC^2}$

$ML := AK + \frac{MO - AB}{2}$ $EL := \sqrt{ML \cdot (MO - ML)}$

$EK := EL - \frac{AC}{2}$ $BG := \frac{EK \cdot AB}{AK}$ $HJ := \frac{BG}{BG + N_5}$

$R := \frac{N_6}{HJ}$ $R = 2.110458$



$N_1 = 3.00000$
$N_2 = 2.00000$
$N_3 = 4.00000$
$N_4 = 5.00000$
$N_5 = 0.30000$
$N_6 = 1.00000$
$R = 1.24271$

$$\frac{N_6\cdot\left(\left(\left(N_2\cdot N_4\right)+2\cdot N_5\cdot\left(N_3-N_4\right)\cdot\left(N_1+N_2\right)\right)-\sqrt{\left(N_2\cdot N_4\right)^2-4\cdot N_3\cdot\left(N_1+N_2\right)^2\cdot\left(N_3-N_4\right)}\right)}{\left(N_2\cdot N_4\right)-\sqrt{\left(N_2\cdot N_4\right)^2-4\cdot N_3\cdot\left(N_1+N_2\right)^2\cdot\left(N_3-N_4\right)}} - R = 0.00000$$

Definitions.

$$R - \frac{N_6\cdot\left[\sqrt{N_4^{\,2}}\cdot\left(AC\cdot N_4+2\cdot N_3\cdot N_5-2\cdot N_4\cdot N_5\right)-N_4\cdot\sqrt{AC^2\cdot N_4^{\,2}-4\cdot N_3^{\,2}+4\cdot N_3\cdot N_4}\right]}{N_4\cdot\left(AC\cdot\sqrt{N_4^{\,2}}-\sqrt{AC^2\cdot N_4^{\,2}-4\cdot N_3^{\,2}+4\cdot N_3\cdot N_4}\right)} = 0$$

$$R - \frac{N_6\cdot\left[N_2\cdot N_4-\sqrt{N_2^{\,2}\cdot N_4^{\,2}-4\cdot N_3\cdot\left(N_1+N_2\right)^2\cdot\left(N_3-N_4\right)}+2\cdot N_5\cdot\left(N_3-N_4\right)\cdot\left(N_1+N_2\right)\right]}{N_2\cdot N_4-\sqrt{N_2^{\,2}\cdot N_4^{\,2}-4\cdot N_3\cdot\left(N_1+N_2\right)^2\cdot\left(N_3-N_4\right)}} = 0$$

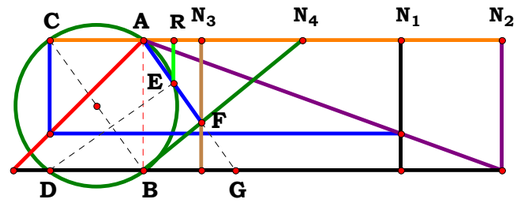
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$ $N_6 - \frac{N_u}{F} = 0$

$$R - \frac{N_u\cdot\left[A\cdot C\cdot E-E\cdot\sqrt{A^2\cdot C^2+4\cdot D\cdot(A+B)^2\cdot(C-D)}-2\cdot N_u\cdot(C-D)\cdot(A+B)\right]}{E\cdot F\cdot\left[A\cdot C-\sqrt{A^2\cdot C^2+4\cdot D\cdot(A+B)^2\cdot(C-D)}\right]} = 0$$

$N_1 - \frac{U}{k} = 0$ $N_2 - \frac{V}{l} = 0$ $N_3 - \frac{W}{m} = 0$ $N_4 - \frac{X}{n} = 0$ $N_5 - \frac{Y}{o} = 0$ $N_6 - \frac{Z}{p} = 0$

$$R - \frac{Z\cdot\left[2\cdot Y\cdot(W\cdot n-X\cdot m)\cdot(U\cdot l+V\cdot k)+V\cdot X\cdot k\cdot m\cdot o-o\cdot\sqrt{V^2\cdot X^2\cdot k^2\cdot m^2-4\cdot W\cdot n\cdot(U\cdot l+V\cdot k)^2\cdot(W\cdot n-X\cdot m)}\right]}{o\cdot p\cdot\left[V\cdot X\cdot k\cdot m-\sqrt{V^2\cdot X^2\cdot k^2\cdot m^2-4\cdot W\cdot n\cdot(U\cdot l+V\cdot k)^2\cdot(W\cdot n-X\cdot m)}\right]} = 0$$

4RST2AB5R0



$N_1 = 1.97331$
$N_2 = 2.74817$
$N_3 = 0.44768$
$N_4 = 1.22018$
$R = 0.23205$

Unit. $AB := 1$ Given. $N_1 := 1.97331$ $N_2 := 2.74817$ $N_3 := .44768$ $N_4 := 1.22018$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

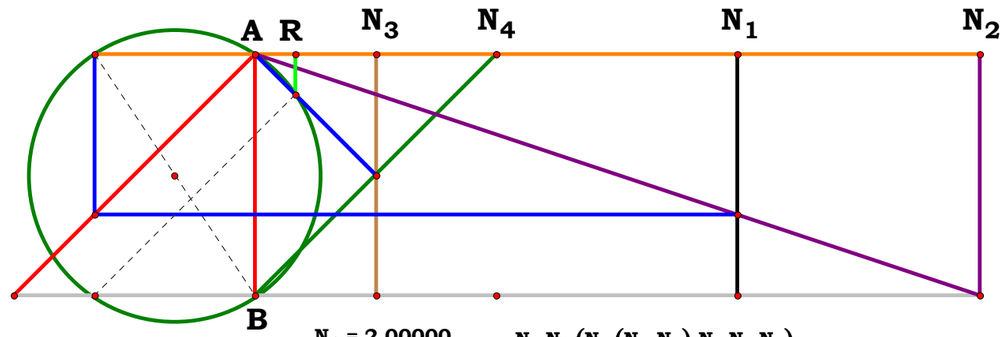
$AC := \frac{N_1}{N_2}$ $FN_3 := \frac{N_4 - N_3}{N_4}$

$AF := \sqrt{N_3^2 + FN_3^2}$ $AG := \frac{AF \cdot AB}{FN_3}$

$BG := \frac{N_3 \cdot AB}{FN_3}$ $DG := BG + AC$

$EG := \frac{N_3 \cdot DG}{AF}$ $AE := AG - EG$

$R := \frac{N_3 \cdot AE}{AF}$ $R = 0.232053$



$N_1 = 2.00000$
$N_2 = 3.00000$
$N_3 = 0.50000$
$N_4 = 1.00000$
$R = 0.16667$

$\frac{N_3 \cdot N_4 \cdot (N_2 \cdot (N_4 - N_3) - N_1 \cdot N_3 \cdot N_4)}{N_2 \cdot (N_3 \cdot N_4 \cdot (N_3 \cdot N_4 - 2) + N_3^2 + N_4^2)} - R = 0.00000$

Definitions.

$$R - \frac{N_3 \cdot N_4 \cdot (N_4 - N_3 - AC \cdot N_3 \cdot N_4)}{N_3^2 \cdot N_4^2 + N_3^2 - 2 \cdot N_3 \cdot N_4 + N_4^2} = 0$$

$$R - \frac{N_3 \cdot N_4 \cdot [N_2 \cdot (N_4 - N_3) - N_1 \cdot N_3 \cdot N_4]}{N_2 \cdot [N_3 \cdot N_4 \cdot (N_3 \cdot N_4 - 2) + N_3^2 + N_4^2]} = 0$$

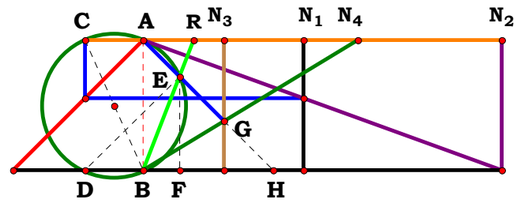
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{N_u \cdot [A \cdot (C - D) - B \cdot N_u]}{A \cdot [(C - D)^2 + N_u^2]} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{Y \cdot Z \cdot (X \cdot Z \cdot m \cdot o - X \cdot Y \cdot m \cdot p - W \cdot Y \cdot Z \cdot n)}{X \cdot m \cdot (Y^2 \cdot Z^2 + Y^2 \cdot p^2 - 2 \cdot Y \cdot Z \cdot o \cdot p + Z^2 \cdot o^2)} = 0$$

4RST2AB5R1



$N_1 = 1.22750$
$N_2 = 2.74817$
$N_3 = 0.62203$
$N_4 = 1.64635$
$R = 0.38264$

Unit. $AB := 1$ Given. $N_1 := 1.22750$ $N_2 := 2.74817$ $N_3 := .62203$ $N_4 := 1.64635$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

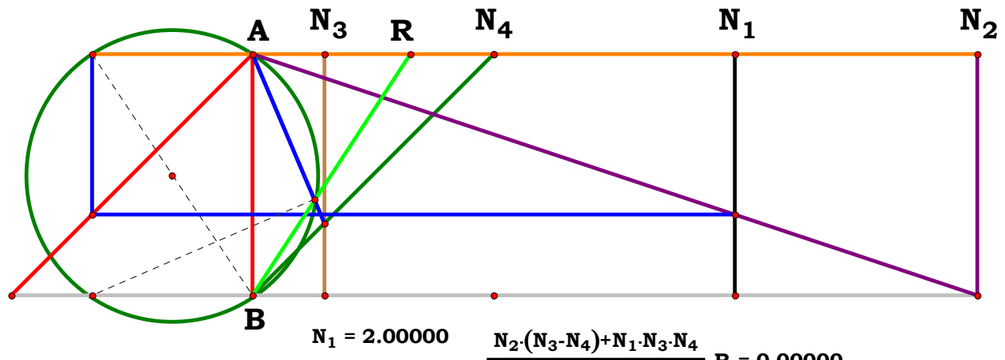
$AC := \frac{N_1}{N_2}$ $GN_3 := \frac{N_4 - N_3}{N_4}$ $AG := \sqrt{N_3^2 + GN_3^2}$

$BH := \frac{N_3 \cdot AB}{GN_3}$ $DH := BH + AC$ $EH := \frac{N_3 \cdot DH}{AG}$

$FH := \frac{N_3 \cdot EH}{AG}$ $BF := BH - FH$

$EF := \frac{AB \cdot FH}{BH}$ $R := \frac{BF \cdot AB}{EF}$

$R = 0.382629$



$N_1 = 2.00000$
$N_2 = 3.00000$
$N_3 = 0.30000$
$N_4 = 1.00000$
$R = 0.65217$

$\frac{N_2 \cdot (N_3 - N_4) + N_1 \cdot N_3 \cdot N_4}{N_1 \cdot (N_3 - N_4) - N_2 \cdot N_3 \cdot N_4} - R = 0.00000$

Definitions.

$R - \frac{N_4 - N_3 - AC \cdot N_3 \cdot N_4}{AC \cdot N_4 - AC \cdot N_3 + N_3 \cdot N_4} = 0$

$R - \frac{N_2 \cdot (N_3 - N_4) + N_1 \cdot N_3 \cdot N_4}{N_1 \cdot (N_3 - N_4) - N_2 \cdot N_3 \cdot N_4} = 0$

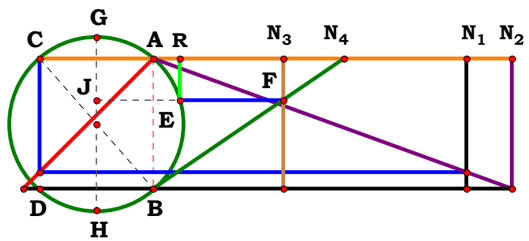
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$R - \frac{A \cdot (C - D) - B \cdot N_u}{B \cdot (C - D) + A \cdot N_u} = 0$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$R - \frac{W \cdot Y \cdot Z \cdot n + X \cdot Y \cdot m \cdot p - X \cdot Z \cdot m \cdot o}{W \cdot Y \cdot n \cdot p - X \cdot Y \cdot Z \cdot m - W \cdot Z \cdot n \cdot o} = 0$

4RST2AB5R2



$N_1 = 2.39948$
$N_2 = 2.74817$
$N_3 = 0.99977$
$N_4 = 1.46232$
$R = 0.20128$

Unit. $AB := 1$ Given. $N_1 := 2.39948$ $N_2 := 2.74817$ $N_3 := .99977$ $N_4 := 1.46232$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

$AC := \frac{N_1}{N_2}$ $GH := \sqrt{AB^2 + AC^2}$

$GJ := \frac{N_4 - N_3}{N_4} + \frac{GH - AB}{2}$ $EJ := \sqrt{GJ \cdot (GH - GJ)}$

$R := EJ - \frac{AC}{2}$ $R = 0.201283$

Definitions.

$$R - \frac{\sqrt{AC^2 \cdot N_4{}^2 - 4 \cdot N_3{}^2 + 4 \cdot N_3 \cdot N_4} - AC \cdot \sqrt{N_4{}^2}}{2 \cdot \sqrt{N_4{}^2}} = 0$$

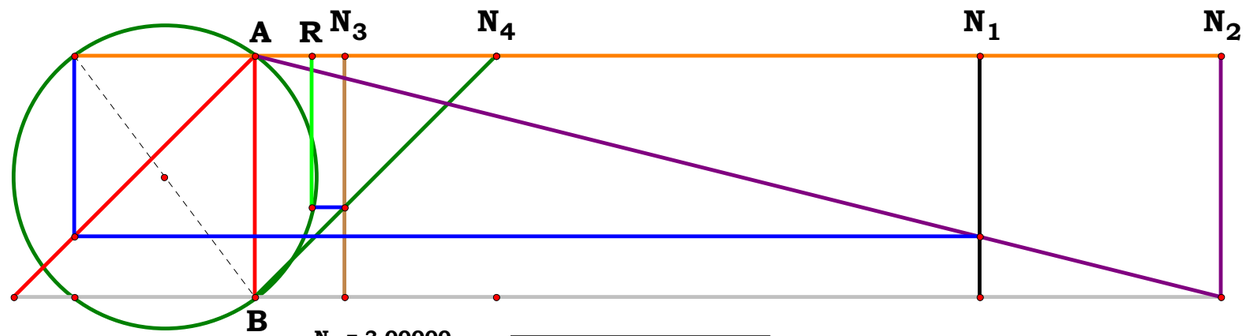
$$R - \frac{\sqrt{N_1{}^2 \cdot N_4{}^2 - 4 \cdot N_2{}^2 \cdot N_3 \cdot (N_3 - N_4)} - N_1 \cdot N_4}{2 \cdot N_2 \cdot N_4} = 0$$

$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{\sqrt{B^2 \cdot C^2 + 4 \cdot A^2 \cdot D \cdot (C - D)} - B \cdot C}{2 \cdot A \cdot C} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

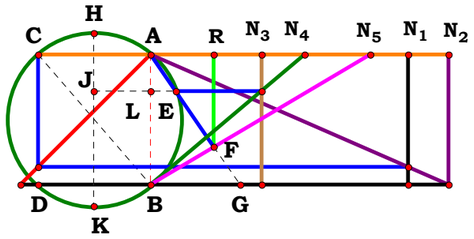
$$R - \frac{\sqrt{W^2 \cdot Z^2 \cdot n^2 \cdot o^2 - 4 \cdot X^2 \cdot Y \cdot m^2 \cdot p \cdot (Y \cdot p - Z \cdot o)} - W \cdot Z \cdot n \cdot o}{2 \cdot X \cdot Z \cdot m \cdot o} = 0$$



$N_1 = 3.00000$
$N_2 = 4.00000$
$N_3 = 0.37128$
$N_4 = 1.00000$
$R = 0.23660$

$$\frac{\sqrt{(N_1 \cdot N_4)^2 - 4 \cdot N_2{}^2 \cdot N_3 \cdot (N_3 - N_4)} - (N_1 \cdot N_4)}{2 \cdot N_2 \cdot N_4} - R = 0.00000$$

4RST2AB5R3



$N_1 = 1.97331$
$N_2 = 2.28325$
$N_3 = 0.85448$
$N_4 = 1.18144$
$N_5 = 1.68533$
$R = 0.48761$

Unit. $AB := 1$ **Given.** $N_1 := 1.97331$ $N_2 := 2.28325$ $N_3 := .85448$ $N_4 := 1.18144$ $N_5 := 1.68533$

$$N_u := 3 \quad A := \frac{N_u}{N_1} \quad B := \frac{N_u}{N_2} \quad C := \frac{N_u}{N_3} \quad D := \frac{N_u}{N_4} \quad E := \frac{N_u}{N_5}$$

$$V := 17 \quad W := 20 \quad X := 19 \quad Y := 18 \quad Z := 17$$

$$l := \frac{V}{N_1} \quad m := \frac{W}{N_2} \quad n := \frac{X}{N_3} \quad o := \frac{Y}{N_4} \quad p := \frac{Z}{N_5}$$

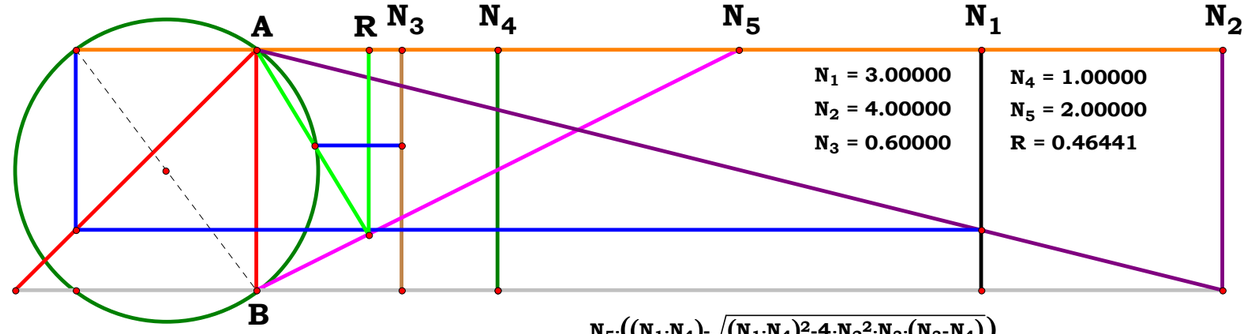
Descriptions.

$$AC := \frac{N_1}{N_2} \qquad HK := \sqrt{AB^2 + AC^2}$$

$$AL := \frac{N_4 - N_3}{N_4} \qquad HJ := AL + \frac{HK - AB}{2}$$

$$EJ := \sqrt{HJ \cdot (HK - HJ)} \qquad BG := -\frac{AB \cdot (AC - 2 \cdot EJ)}{2 \cdot AL}$$

$$R := \frac{N_5 \cdot BG}{N_5 + BG} \qquad R = 0.487604$$



$$\frac{N_5 \cdot \left((N_1 \cdot N_4) - \sqrt{(N_1 \cdot N_4)^2 - 4 \cdot N_2^2 \cdot N_3 \cdot (N_3 - N_4)}\right)}{\left((N_1 \cdot N_4) + 2 \cdot N_2 \cdot N_5 \cdot (N_3 - N_4)\right) - \sqrt{(N_1 \cdot N_4)^2 - 4 \cdot N_2^2 \cdot N_3 \cdot (N_3 - N_4)}} - R = 0.00000$$

Definitions.

$$R - \frac{N_4 \cdot N_5 \cdot \left(AC \cdot \sqrt{N_4^2} - \sqrt{AC^2 \cdot N_4^2 - 4 \cdot N_3^2 + 4 \cdot N_3 \cdot N_4}\right)}{\sqrt{N_4^2} \cdot \left(AC \cdot N_4 + 2 \cdot N_3 \cdot N_5 - 2 \cdot N_4 \cdot N_5\right) - N_4 \cdot \sqrt{AC^2 \cdot N_4^2 - 4 \cdot N_3^2 + 4 \cdot N_3 \cdot N_4}} = 0$$

$$R - \frac{N_5 \cdot \left[N_1 \cdot N_4 - \sqrt{N_1^2 \cdot N_4^2 - 4 \cdot N_2^2 \cdot N_3 \cdot (N_3 - N_4)}\right]}{N_1 \cdot N_4 + 2 \cdot N_2 \cdot N_5 \cdot (N_3 - N_4) - \sqrt{N_1^2 \cdot N_4^2 - 4 \cdot N_2^2 \cdot N_3 \cdot (N_3 - N_4)}} = 0$$

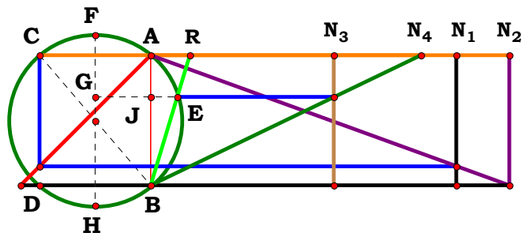
$$N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0 \quad N_4 - \frac{N_u}{D} = 0 \quad N_5 - \frac{N_u}{E} = 0$$

$$R - \frac{N_u \cdot \left[\sqrt{B^2 \cdot C^2 + 4 \cdot A^2 \cdot D \cdot (C - D)} - B \cdot C\right]}{E \cdot \sqrt{B^2 \cdot C^2 + 4 \cdot A^2 \cdot D \cdot (C - D)} + 2 \cdot N_u \cdot A \cdot (C - D) - B \cdot C \cdot E} = 0$$

$$N_1 - \frac{V}{l} = 0 \quad N_2 - \frac{W}{m} = 0 \quad N_3 - \frac{X}{n} = 0 \quad N_4 - \frac{Y}{o} = 0 \quad N_5 - \frac{Z}{p} = 0$$

$$R - \frac{Z \cdot \left[V \cdot Y \cdot m \cdot n - \sqrt{V^2 \cdot Y^2 \cdot m^2 \cdot n^2 - 4 \cdot W^2 \cdot X \cdot l^2 \cdot o \cdot (X \cdot o - Y \cdot n)}\right]}{2 \cdot W \cdot Z \cdot l \cdot (X \cdot o - Y \cdot n) + V \cdot Y \cdot m \cdot n \cdot p - p \cdot \sqrt{V^2 \cdot Y^2 \cdot m^2 \cdot n^2 - 4 \cdot W^2 \cdot X \cdot l^2 \cdot o \cdot (X \cdot o - Y \cdot n)}} = 0$$

4RST2AB5R4



$N_1 = 2.34137$
$N_2 = 2.74817$
$N_3 = 1.40657$
$N_4 = 2.07253$
$R = 0.30369$

Unit. $AB := 1$ Given. $N_1 := 2.34137$ $N_2 := 2.74817$ $N_3 := 1.40657$ $N_4 := 2.07253$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

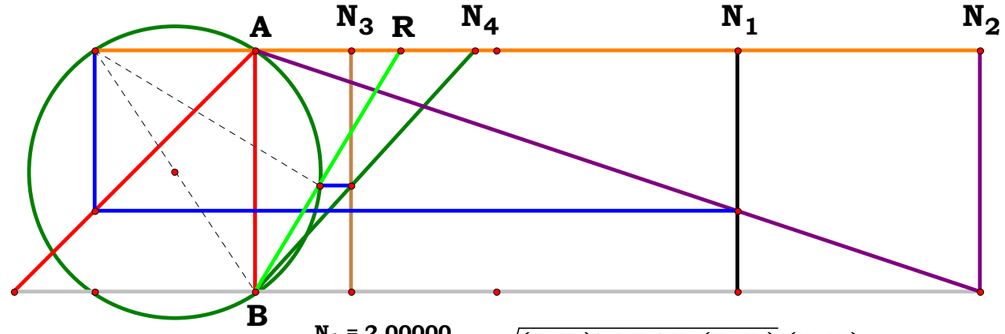
Descriptions.

$AC := \frac{N_1}{N_2}$ $AE := \frac{N_4 - N_3}{N_4}$ $BE := AB - AE$

$FH := \sqrt{AB^2 + AC^2}$ $FG := AE + \frac{FH - AB}{2}$

$EG := \sqrt{FG \cdot (FH - FG)}$ $EJ := EG - \frac{AC}{2}$

$R := \frac{EJ \cdot AB}{BE}$ $R = 0.303689$



$N_1 = 2.00000$
$N_2 = 3.00000$
$N_3 = 0.40000$
$N_4 = 0.91111$
$R = 0.60245$

$\frac{\sqrt{(N_1 \cdot N_4)^2 - 4 \cdot N_2^2 \cdot N_3 \cdot (N_3 - N_4)} - (N_1 \cdot N_4)}{2 \cdot N_2 \cdot N_3} - R = 0.00000$

Definitions.

$$R - \frac{N_4 \cdot \sqrt{AC^2 \cdot N_4^2 - 4 \cdot N_3^2 + 4 \cdot N_3 \cdot N_4} - AC \cdot N_4 \cdot \sqrt{N_4^2}}{2 \cdot N_3 \cdot \sqrt{N_4^2}} = 0$$

$$R - \frac{\sqrt{N_1^2 \cdot N_4^2 - 4 \cdot N_2^2 \cdot N_3 \cdot (N_3 - N_4)} - N_1 \cdot N_4}{2 \cdot N_2 \cdot N_3} = 0$$

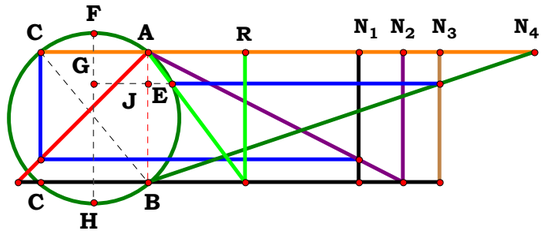
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{\sqrt{B^2 \cdot C^2 + 4 \cdot A^2 \cdot D \cdot (C - D)} - B \cdot C}{2 \cdot A \cdot D} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{\sqrt{W^2 \cdot Z^2 \cdot n^2 \cdot o^2 - 4 \cdot X^2 \cdot Y \cdot m^2 \cdot p \cdot (Y \cdot p - Z \cdot o)} - W \cdot Z \cdot n \cdot o}{2 \cdot X \cdot Y \cdot m \cdot p} = 0$$

4RST2AB5R5



$N_1 = 1.61493$
$N_2 = 1.95394$
$N_3 = 2.23955$
$N_4 = 2.96362$
$R = 0.74864$

Unit. $AB := 1$ Given. $N_1 := 1.61493$ $N_2 := 1.95394$ $N_3 := 2.23955$ $N_4 := 2.96362$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

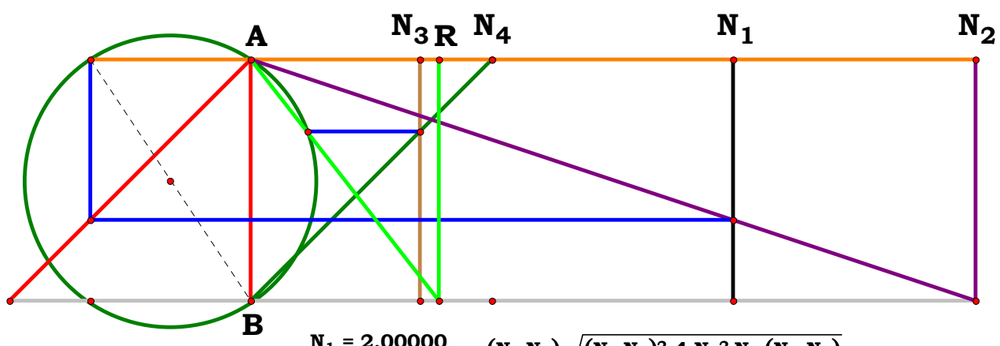
Descriptions.

$AC := \frac{N_1}{N_2}$ $AJ := \frac{N_4 - N_3}{N_4}$

$FH := \sqrt{AB^2 + AC^2}$ $FG := AJ + \frac{FH - AB}{2}$

$EG := \sqrt{FG \cdot (FH - FG)}$ $EJ := EG - \frac{AC}{2}$

$R := \frac{EJ \cdot AB}{AJ}$ $R = 0.748639$



$N_1 = 2.00000$
$N_2 = 3.00000$
$N_3 = 0.70000$
$N_4 = 1.00000$
$R = 0.77778$

$\frac{(N_1 \cdot N_4) - \sqrt{(N_1 \cdot N_4)^2 - 4 \cdot N_2^2 \cdot N_3 \cdot (N_3 - N_4)}}{2 \cdot N_2 \cdot (N_3 - N_4)} - R = 0.00000$

Definitions.

$$R - \frac{N_4 \cdot \left(AC \cdot \sqrt{N_4^2} - \sqrt{AC^2 \cdot N_4^2 - 4 \cdot N_3^2 + 4 \cdot N_3 \cdot N_4}\right)}{2 \cdot (N_3 - N_4) \cdot \sqrt{N_4^2}} = 0$$

$$R - \frac{N_1 \cdot N_4 - \sqrt{N_1^2 \cdot N_4^2 - 4 \cdot N_2^2 \cdot N_3 \cdot (N_3 - N_4)}}{2 \cdot N_2 \cdot (N_3 - N_4)} = 0$$

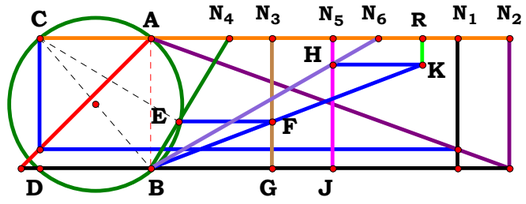
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{\sqrt{B^2 \cdot C^2 + 4 \cdot A^2 \cdot D \cdot (C - D)} - B \cdot C}{2 \cdot A \cdot (C - D)} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{W \cdot Z \cdot n \cdot o - \sqrt{W^2 \cdot Z^2 \cdot n^2 \cdot o^2 - 4 \cdot X^2 \cdot Y \cdot m^2 \cdot p \cdot (Y \cdot p - Z \cdot o)}}{2 \cdot X \cdot m \cdot (Y \cdot p - Z \cdot o)} = 0$$

4RST2AB5R6



$N_1 = 2.35105$ $N_5 = 1.39475$
$N_2 = 2.74817$ $N_6 = 1.74344$
$N_3 = 0.93197$ $R = 2.08498$
$N_4 = 0.60029$

Unit. $AB := 1$ **Given.** $N_1 := 2.35105$ $N_2 := 2.74817$ $N_3 := .93197$

$N_4 := .60029$ $N_5 := 1.39475$ $N_6 := 1.74344$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $F := \frac{N_u}{N_6}$

$U := 18$ $V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$k := \frac{U}{N_1}$ $l := \frac{V}{N_2}$ $m := \frac{W}{N_3}$ $n := \frac{X}{N_4}$ $o := \frac{Y}{N_5}$ $p := \frac{Z}{N_6}$

Descriptions.

$AC := \frac{N_1}{N_2}$ $HN_5 := \frac{N_6 - N_5}{N_6}$ $HJ := AB - HN_5$

$BN_4 := \sqrt{N_4^2 + AB^2}$ $CN_4 := N_4 + AC$

$EN_4 := \frac{N_4 \cdot CN_4}{BN_4}$ $BE := BN_4 - EN_4$

$FG := \frac{AB \cdot BE}{BN_4}$ $R := \frac{N_3 \cdot HJ}{FG}$ $R = 2.084969$

Definitions.

$$R - \frac{N_3 \cdot N_5 \cdot \left(N_4^2 + 1\right)}{N_6 - AC \cdot N_4 \cdot N_6} = 0$$

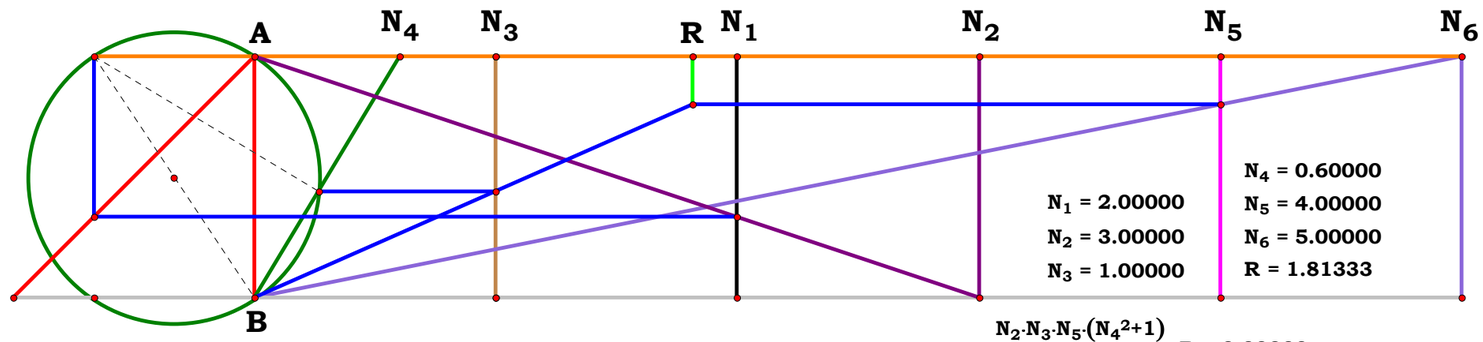
$$R - \frac{N_2 \cdot N_3 \cdot N_5 \cdot \left(N_4^2 + 1\right)}{N_6 \cdot \left(N_2 - N_1 \cdot N_4\right)} = 0$$

$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$ $N_6 - \frac{N_u}{F} = 0$

$$R - \frac{A \cdot F \cdot N_u \cdot \left(D^2 + N_u^2\right)}{\left[C \cdot D \cdot E \cdot \left(A \cdot D - B \cdot N_u\right)\right]} = 0$$

$N_1 - \frac{U}{k} = 0$ $N_2 - \frac{V}{l} = 0$ $N_3 - \frac{W}{m} = 0$ $N_4 - \frac{X}{n} = 0$ $N_5 - \frac{Y}{o} = 0$ $N_6 - \frac{Z}{p} = 0$

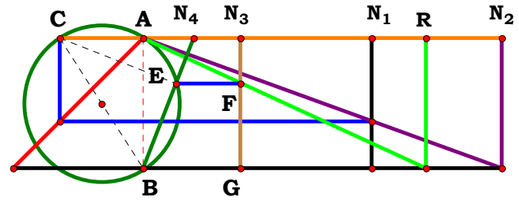
$$R - \frac{V \cdot W \cdot Y \cdot k \cdot p \cdot \left(X^2 + n^2\right)}{Z \cdot m \cdot n \cdot o \cdot (V \cdot k \cdot n - U \cdot X \cdot l)} = 0$$



$N_1 = 2.00000$ $N_4 = 0.60000$
$N_2 = 3.00000$ $N_5 = 4.00000$
$N_3 = 1.00000$ $N_6 = 5.00000$
$R = 1.81333$

$\frac{N_2 \cdot N_3 \cdot N_5 \cdot (N_4^2+1)}{N_6 \cdot (N_2 - N_1 \cdot N_4)} - R = 0.00000$

4RST2AB5R7



$N_1 = 1.75053$
$N_2 = 2.74817$
$N_3 = 0.74794$
$N_4 = 0.38720$
$R = 2.16881$

Unit. $AB := 1$ Given. $N_1 := 1.75053$ $N_2 := 2.74817$ $N_3 := .74794$ $N_4 := .38720$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

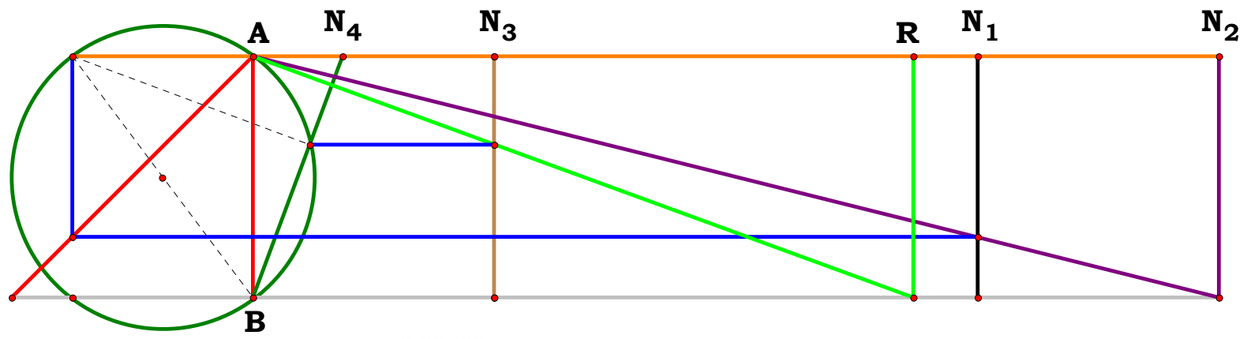
Descriptions.

$AC := \frac{N_1}{N_2}$ $CN_4 := N_4 + AC$

$BN_4 := \sqrt{N_4^2 + AB^2}$ $EN_4 := \frac{N_4 \cdot CN_4}{BN_4}$

$FN_3 := \frac{AB \cdot EN_4}{BN_4}$ $R := \frac{N_3 \cdot AB}{FN_3}$

$R = 2.168823$



Definitions.

$$R - \frac{N_3 \cdot \left(N_4^2 + 1\right)}{N_4 \cdot (AC + N_4)} = 0$$

$$R - \frac{N_2 \cdot N_3 \cdot \left(N_4^2 + 1\right)}{N_4 \cdot \left(N_1 + N_2 \cdot N_4\right)} = 0$$

$N_1 = 3.00000$
$N_2 = 4.00000$
$N_3 = 1.00000$
$N_4 = 0.37128$
$R = 2.73321$

$\frac{N_2 \cdot N_3 \cdot (N_4^2+1)}{N_4 \cdot (N_1+N_2 \cdot N_4)} - R = 0.00000$

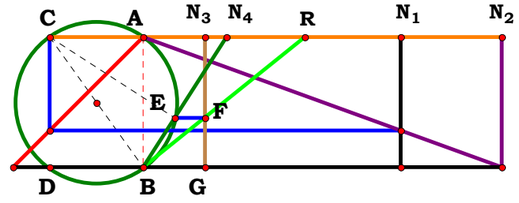
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{A \cdot \left(D^2 + N_u^2\right)}{C \cdot \left(B \cdot D + A \cdot N_u\right)} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{X \cdot Y \cdot m \cdot \left(Z^2 + p^2\right)}{X \cdot m \cdot o \cdot Z^2 + W \cdot n \cdot o \cdot p \cdot Z} = 0$$

4RST2AB5R8



$N_1 = 1.97331$
$N_2 = 2.74817$
$N_3 = 0.47674$
$N_4 = 0.63903$
$R = 1.24074$

Unit. $AB := 1$ Given. $N_1 := 1.97331$ $N_2 := 2.74817$ $N_3 := .47674$ $N_4 := .63903$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

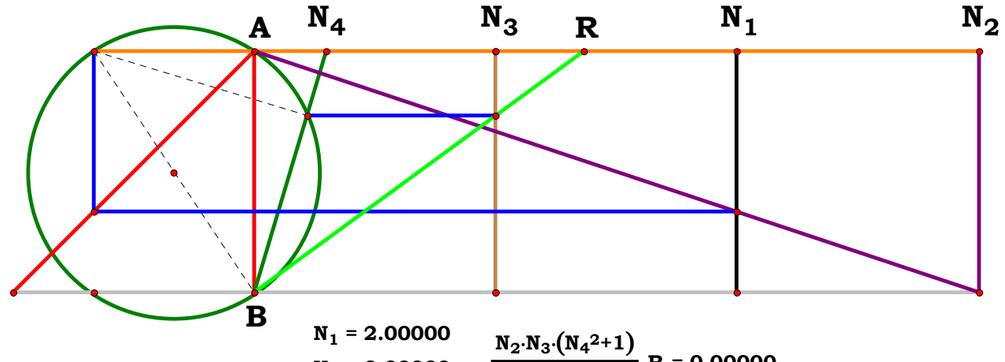
$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

$AC := \frac{N_1}{N_2}$ $CN_4 := N_4 + AC$ $BN_4 := \sqrt{N_4^2 + AB^2}$

$EN_4 := \frac{N_4 \cdot CN_4}{BN_4}$ $BE := BN_4 - EN_4$

$R := \frac{N_3 \cdot BN_4}{BE}$ $R = 1.240736$



$N_1 = 2.00000$
$N_2 = 3.00000$
$N_3 = 1.00000$
$N_4 = 0.30000$
$R = 1.36250$

$\frac{N_2 \cdot N_3 \cdot (N_4^2+1)}{N_2 - N_1 \cdot N_4} - R = 0.00000$

Definitions.

$$R - \frac{N_3 \cdot \left(N_4^2 + 1\right)}{1 - AC \cdot N_4} = 0$$

$$R - \frac{N_2 \cdot N_3 \cdot \left(N_4^2 + 1\right)}{N_2 - N_1 \cdot N_4} = 0$$

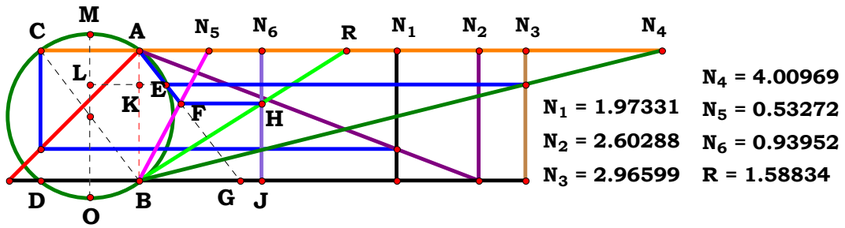
$$N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0 \quad N_4 - \frac{N_u}{D} = 0$$

$$R - \frac{A \cdot N_u \cdot \left(D^2 + N_u^2\right)}{C \cdot D \cdot \left(A \cdot D - B \cdot N_u\right)} = 0$$

$$N_1 - \frac{W}{m} = 0 \quad N_2 - \frac{X}{n} = 0 \quad N_3 - \frac{Y}{o} = 0 \quad N_4 - \frac{Z}{p} = 0$$

$$R - \frac{X \cdot Y \cdot m \cdot \left(Z^2 + p^2\right)}{X \cdot m \cdot o \cdot p^2 - W \cdot Z \cdot n \cdot o \cdot p} = 0$$

4RST2AB5R9



$N_4 = 4.00969$ $N_5 = 0.53272$ $N_6 = 0.93952$
$N_1 = 1.97331$ $N_2 = 2.60288$ $N_3 = 2.96599$ $R = 1.58834$

Unit. $AB := 1$ **Given.** $N_1 := 1.97331$ $N_2 := 2.60288$ $N_3 := 2.96599$ $N_4 := 4.00969$ $N_5 := .53272$ $N_6 := .93952$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $F := \frac{N_u}{N_6}$

$U := 18$ $V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$k := \frac{U}{N_1}$ $l := \frac{V}{N_2}$ $m := \frac{W}{N_3}$ $n := \frac{X}{N_4}$ $o := \frac{Y}{N_5}$ $p := \frac{Z}{N_6}$

Descriptions.

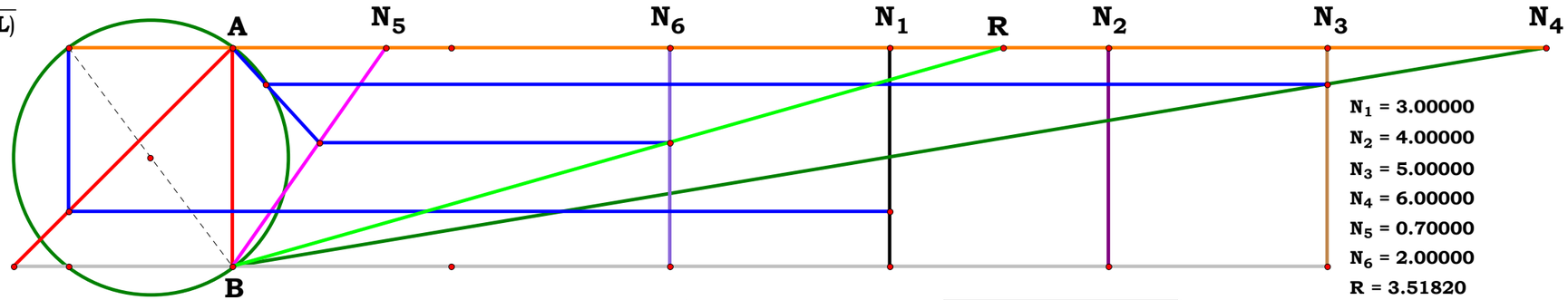
$AC := \frac{N_1}{N_2}$ $AK := \frac{N_4 - N_3}{N_4}$ $MO := \sqrt{AB^2 + AC^2}$

$ML := AK + \frac{MO - AB}{2}$ $EL := \sqrt{ML \cdot (MO - ML)}$

$EK := EL - \frac{AC}{2}$ $BG := \frac{EK \cdot AB}{AK}$

$HJ := \frac{BG}{BG + N_5}$ $R := \frac{N_6}{HJ}$

$R = 1.588344$



$N_1 = 3.00000$
$N_2 = 4.00000$
$N_3 = 5.00000$
$N_4 = 6.00000$
$N_5 = 0.70000$
$N_6 = 2.00000$
$R = 3.51820$

$\frac{N_6 \cdot (((N_1 \cdot N_4) + 2 \cdot N_2 \cdot N_5 \cdot (N_3 - N_4)) - \sqrt{(N_1 \cdot N_4)^2 - 4 \cdot N_2^2 \cdot N_3 \cdot (N_3 - N_4)})}{(N_1 \cdot N_4) - \sqrt{(N_1 \cdot N_4)^2 - 4 \cdot N_2^2 \cdot N_3 \cdot (N_3 - N_4)}} - R = 0.00000$

Definitions.

$$R - \frac{N_6 \cdot \left[\sqrt{N_4^2} \cdot \left(AC \cdot N_4 + 2 \cdot N_3 \cdot N_5 - 2 \cdot N_4 \cdot N_5\right) - N_4 \cdot \sqrt{AC^2 \cdot N_4^2 - 4 \cdot N_3^2 + 4 \cdot N_3 \cdot N_4}\right]}{N_4 \cdot \left(AC \cdot \sqrt{N_4^2} - \sqrt{AC^2 \cdot N_4^2 - 4 \cdot N_3^2 + 4 \cdot N_3 \cdot N_4}\right)} = 0$$

$$R - \frac{N_6 \cdot \left[N_1 \cdot N_4 + 2 \cdot N_2 \cdot N_5 \cdot \left(N_3 - N_4\right) - \sqrt{N_1^2 \cdot N_4^2 - 4 \cdot N_2^2 \cdot N_3 \cdot \left(N_3 - N_4\right)}\right]}{N_1 \cdot N_4 - \sqrt{N_1^2 \cdot N_4^2 - 4 \cdot N_2^2 \cdot N_3 \cdot \left(N_3 - N_4\right)}} = 0$$

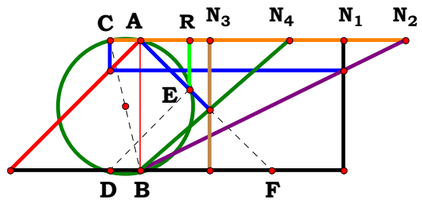
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$ $N_6 - \frac{N_u}{F} = 0$

$$R - \frac{N_u \cdot \left[E \cdot \sqrt{B^2 \cdot C^2 + 4 \cdot A^2 \cdot D \cdot (C - D)} + 2 \cdot N_u \cdot A \cdot (C - D) - B \cdot C \cdot E\right]}{E \cdot F \cdot \left[\sqrt{B^2 \cdot C^2 + 4 \cdot A^2 \cdot D \cdot (C - D)} - B \cdot C\right]} = 0$$

$N_1 - \frac{U}{k} = 0$ $N_2 - \frac{V}{l} = 0$ $N_3 - \frac{W}{m} = 0$ $N_4 - \frac{X}{n} = 0$ $N_5 - \frac{Y}{o} = 0$ $N_6 - \frac{Z}{p} = 0$

$$R - \frac{Z \cdot \left[2 \cdot V \cdot Y \cdot k \cdot (W \cdot n - X \cdot m) + U \cdot X \cdot l \cdot m \cdot o - o \cdot \sqrt{U^2 \cdot X^2 \cdot l^2 \cdot m^2 - 4 \cdot V^2 \cdot W \cdot k^2 \cdot n \cdot (W \cdot n - X \cdot m)}\right]}{o \cdot p \cdot \left[U \cdot X \cdot l \cdot m - \sqrt{U^2 \cdot X^2 \cdot l^2 \cdot m^2 - 4 \cdot V^2 \cdot W \cdot k^2 \cdot n \cdot (W \cdot n - X \cdot m)}\right]} = 0$$

4RST2AB6R0



$N_1 = 1.55682$
$N_2 = 2.03142$
$N_3 = 0.53485$
$N_4 = 1.14269$
$R = 0.38254$

Unit. $AB := 1$ Given. $N_1 := 1.55682$ $N_2 := 2.03142$ $N_3 := .53485$ $N_4 := 1.14269$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

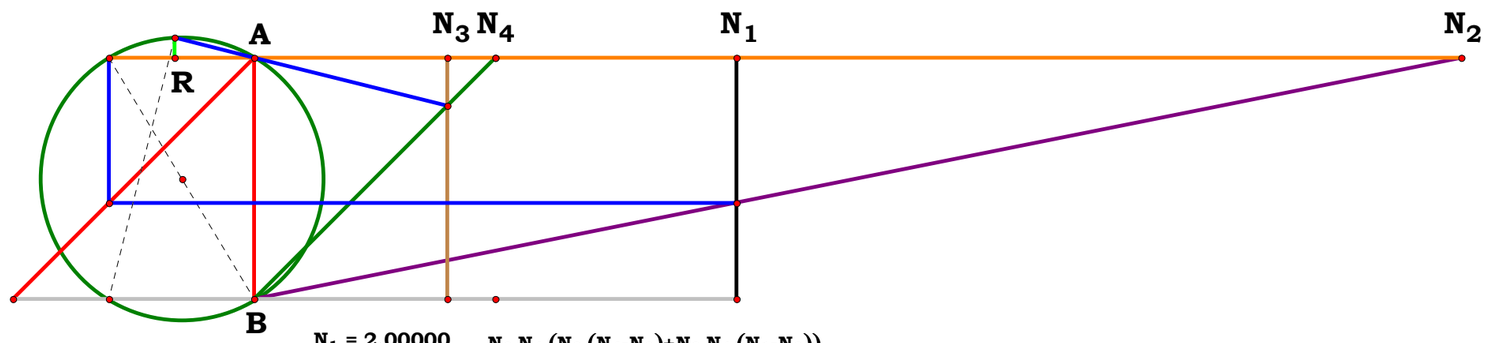
$AC := \frac{N_2 - N_1}{N_2}$ $FN_3 := \frac{N_4 - N_3}{N_4}$

$AF := \sqrt{N_3^2 + FN_3^2}$ $AG := \frac{AF \cdot AB}{FN_3}$

$BG := \frac{N_3 \cdot AB}{FN_3}$ $DG := BG + AC$

$EG := \frac{N_3 \cdot DG}{AF}$ $AE := AG - EG$

$R := \frac{N_3 \cdot AE}{AF}$ $R = 0.38254$



$N_1 = 2.00000$
$N_2 = 5.00000$
$N_3 = 0.80000$
$N_4 = 1.00000$
$R = -0.32941$

$\frac{N_3 \cdot N_4 \cdot (N_2 \cdot (N_4 - N_3) + N_3 \cdot N_4 \cdot (N_1 - N_2))}{N_2 \cdot (N_3 \cdot N_4 \cdot (N_3 \cdot N_4 - 2) + N_3^2 + N_4^2)} - R = 0.00000$

Definitions.

$$R - \frac{N_3 \cdot N_4 \cdot (N_4 - N_3 - AC \cdot N_3 \cdot N_4)}{N_3^2 \cdot N_4^2 + N_3^2 - 2 \cdot N_3 \cdot N_4 + N_4^2} = 0$$

$$R - \frac{N_3 \cdot N_4 \cdot [N_2 \cdot (N_4 - N_3) + N_3 \cdot N_4 \cdot (N_1 - N_2)]}{N_2 \cdot [N_3 \cdot N_4 \cdot (N_3 \cdot N_4 - 2) + N_3^2 + N_4^2]} = 0$$

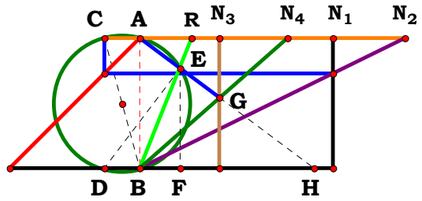
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{N_u \cdot [A \cdot (C - D) - N_u \cdot (A - B)]}{A \cdot [(C - D)^2 + N_u^2]} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{Y \cdot Z \cdot (W \cdot Y \cdot Z \cdot n - X \cdot Y \cdot Z \cdot m - X \cdot Y \cdot m \cdot p + X \cdot Z \cdot m \cdot o)}{X \cdot m \cdot (Y^2 \cdot Z^2 + Y^2 \cdot p^2 - 2 \cdot Y \cdot Z \cdot o \cdot p + Z^2 \cdot o^2)} = 0$$

4RST2AB6R1



$N_1 = 1.47933$
$N_2 = 2.03142$
$N_3 = 0.61234$
$N_4 = 1.13301$
$R = 0.39760$

Unit. $AB := 1$ Given. $N_1 := 1.47933$ $N_2 := 2.03142$ $N_3 := .61234$ $N_4 := 1.13301$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

$AC := \frac{N_2 - N_1}{N_2}$ $GN_3 := \frac{N_4 - N_3}{N_4}$

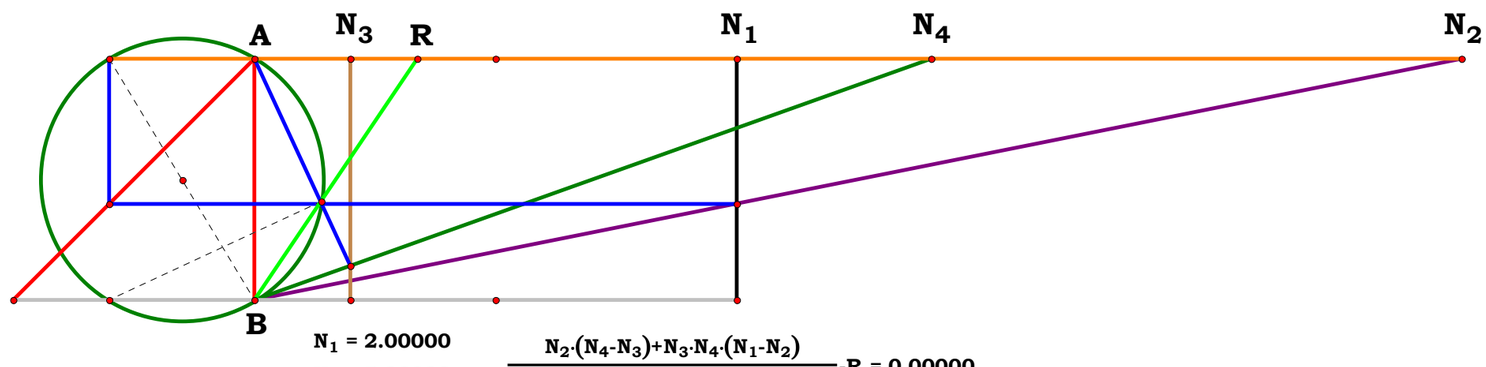
$AG := \sqrt{N_3^2 + GN_3^2}$ $BH := \frac{N_3 \cdot AB}{GN_3}$

$DH := BH + AC$ $EH := \frac{N_3 \cdot DH}{AG}$

$FH := \frac{N_3 \cdot EH}{AG}$ $BF := BH - FH$

$EF := \frac{AB \cdot FH}{BH}$ $R := \frac{BF \cdot AB}{EF}$

$R = 0.397604$



$N_1 = 2.00000$
$N_2 = 5.00000$
$N_3 = 0.40000$
$N_4 = 2.80398$
$R = 0.67513$

$$\frac{N_2 \cdot (N_4 - N_3) + N_3 \cdot N_4 \cdot (N_1 - N_2)}{N_1 \cdot N_3 + N_4 \cdot (N_2 - N_1) + N_2 \cdot N_3 \cdot (N_4 - 1)} - R = 0.00000$$

Definitions.

$$R - \frac{N_4 - N_3 - AC \cdot N_3 \cdot N_4}{AC \cdot N_4 - AC \cdot N_3 + N_3 \cdot N_4} = 0$$

$$R - \frac{N_2 \cdot (N_4 - N_3) + N_3 \cdot N_4 \cdot (N_1 - N_2)}{N_1 \cdot N_3 + N_4 \cdot (N_2 - N_1) + N_2 \cdot N_3 \cdot (N_4 - 1)} = 0$$

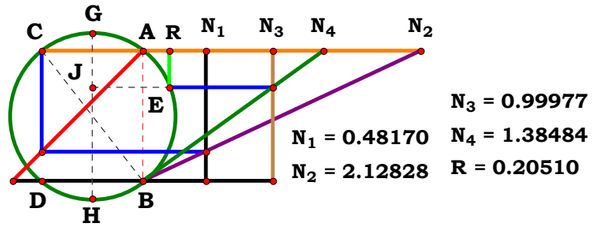
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{A \cdot (C - D) - N_u \cdot (A - B)}{(C - D) \cdot (A - B) + A \cdot N_u} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{Y \cdot Z \cdot (W \cdot n - X \cdot m) - X \cdot m \cdot (Y \cdot p - Z \cdot o)}{X \cdot m \cdot (Y \cdot Z - Y \cdot p + Z \cdot o) + W \cdot n \cdot (Y \cdot p - Z \cdot o)} = 0$$

4RST2AB6R2



Unit. $AB := 1$ Given. $N_1 := .48170$ $N_2 := 2.12828$ $N_3 := .99977$ $N_4 := 1.38484$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

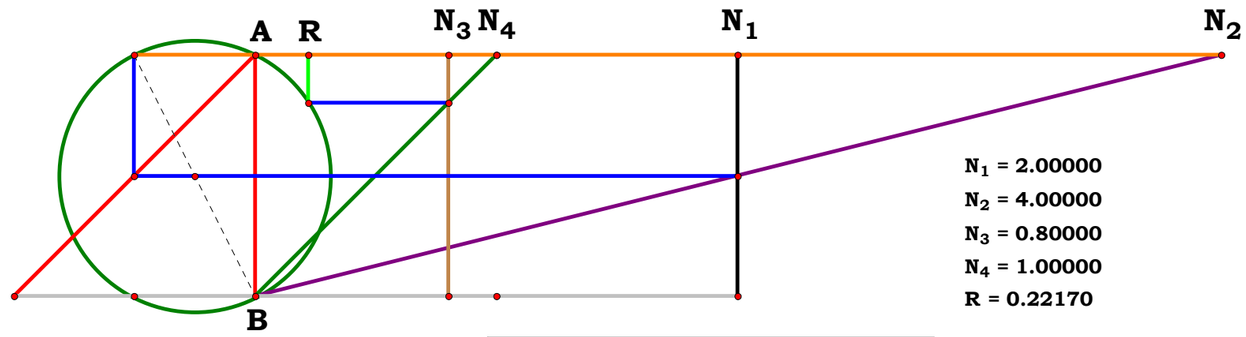
$$AC := \frac{N_2 - N_1}{N_2} \qquad GH := \sqrt{AB^2 + AC^2}$$

$$GJ := \frac{N_4 - N_3}{N_4} + \frac{GH - AB}{2} \qquad EJ := \sqrt{GJ \cdot (GH - GJ)}$$

$$R := EJ - \frac{AC}{2} \qquad R = 0.205098$$

Definitions.

$$R - \frac{\sqrt{AC^2 \cdot N_4^{\,2} - 4 \cdot N_3^{\,2} + 4 \cdot N_3 \cdot N_4} - AC \cdot \sqrt{N_4^{\,2}}}{2 \cdot \sqrt{N_4^{\,2}}} = 0$$



$$R - \frac{\sqrt{N_2^{\,2} \cdot N_4^{\,2} + N_1 \cdot N_4^{\,2} \cdot (N_1 - 2 \cdot N_2) - 4 \cdot N_2^{\,2} \cdot N_3 \cdot (N_3 - N_4)} + N_4 \cdot (N_1 - N_2)}{2 \cdot N_2 \cdot N_4} = 0$$

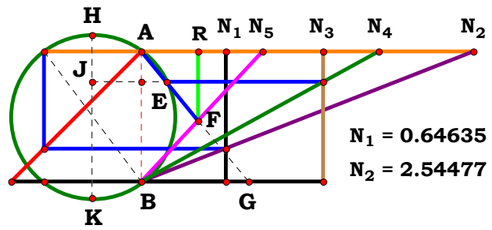
$$N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0 \quad N_4 - \frac{N_u}{D} = 0$$

$$R - \frac{\sqrt{A^2 \cdot C^2 + 4 \cdot A^2 \cdot C \cdot D - 4 \cdot A^2 \cdot D^2 - 2 \cdot A \cdot B \cdot C^2 + B^2 \cdot C^2} - C \cdot (A - B)}{2 \cdot A \cdot C} = 0$$

$$N_1 - \frac{W}{m} = 0 \quad N_2 - \frac{X}{n} = 0 \quad N_3 - \frac{Y}{o} = 0 \quad N_4 - \frac{Z}{p} = 0$$

$$R - \frac{\sqrt{X^2 \cdot m^2 \cdot (4 \cdot Y \cdot Z \cdot o \cdot p - 4 \cdot Y^2 \cdot p^2 + Z^2 \cdot o^2) + W \cdot Z^2 \cdot n \cdot o^2 \cdot (W \cdot n - 2 \cdot X \cdot m)} + Z \cdot o \cdot (W \cdot n - X \cdot m)}{2 \cdot X \cdot Z \cdot m \cdot o} = 0$$

4RST2AB6R3



$N_3 = 1.39689$
$N_4 = 1.82070$
$N_5 = 0.92984$
$R = 0.43548$
$N_1 = 0.64635$
$N_2 = 2.54477$

Unit. $AB := 1$ Given. $N_1 := .64635$ $N_2 := 2.54477$ $N_3 := 1.39689$

$N_4 := 1.82070$ $N_5 := .92984$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$

$V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $l := \frac{V}{N_1}$ $m := \frac{W}{N_2}$ $n := \frac{X}{N_3}$ $o := \frac{Y}{N_4}$ $p := \frac{Z}{N_5}$

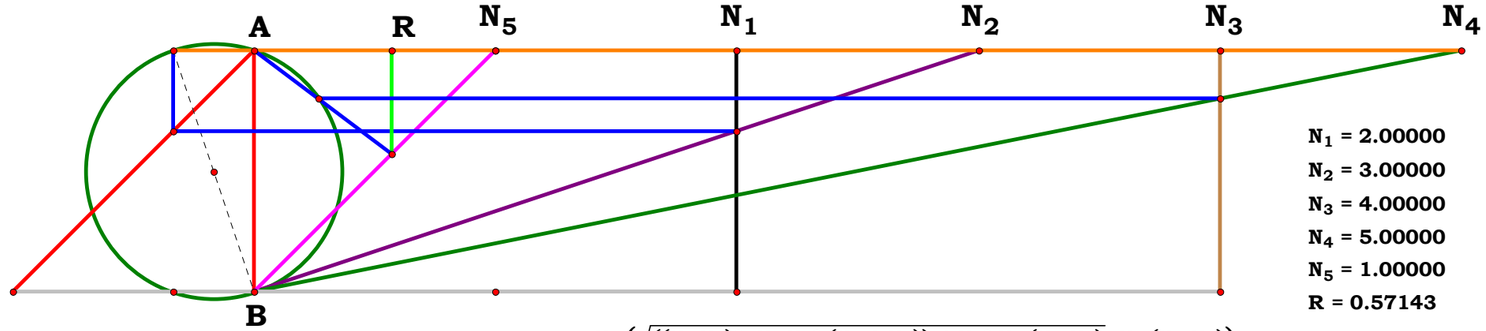
Descriptions.

$AC := \frac{N_2 - N_1}{N_2}$ $HK := \sqrt{AB^2 + AC^2}$

$AL := \frac{N_4 - N_3}{N_4}$ $HJ := AL + \frac{HK - AB}{2}$

$EJ := \sqrt{HJ \cdot (HK - HJ)}$ $BG := -\frac{AB \cdot (AC - 2 \cdot EJ)}{2 \cdot AL}$

$R := \frac{N_5 \cdot BG}{N_5 + BG}$ $R = 0.435482$



$N_1 = 2.00000$
$N_2 = 3.00000$
$N_3 = 4.00000$
$N_4 = 5.00000$
$N_5 = 1.00000$
$R = 0.57143$

Definitions.

$$R - \frac{N_4 \cdot N_5 \cdot \left(AC \cdot \sqrt{N_4^2} - \sqrt{AC^2 \cdot N_4^2 - 4 \cdot N_3^2 + 4 \cdot N_3 \cdot N_4}\right)}{\sqrt{N_4^2} \cdot \left(AC \cdot N_4 + 2 \cdot N_3 \cdot N_5 - 2 \cdot N_4 \cdot N_5\right) - N_4 \cdot \sqrt{AC^2 \cdot N_4^2 - 4 \cdot N_3^2 + 4 \cdot N_3 \cdot N_4}} = 0$$

$$R - \frac{N_5 \cdot \left[\sqrt{N_2^2 \cdot N_4^2 + N_1 \cdot N_4^2 \cdot (N_1 - 2 \cdot N_2) - 4 \cdot N_2^2 \cdot N_3 \cdot (N_3 - N_4)} + N_4 \cdot (N_1 - N_2)\right]}{\sqrt{N_2^2 \cdot N_4^2 + N_1 \cdot N_4^2 \cdot (N_1 - 2 \cdot N_2) - 4 \cdot N_2^2 \cdot N_3 \cdot (N_3 - N_4)} + N_4 \cdot (N_1 - N_2) - 2 \cdot N_2 \cdot N_5 \cdot (N_3 - N_4)} = 0$$

$$N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0 \quad N_4 - \frac{N_u}{D} = 0 \quad N_5 - \frac{N_u}{E} = 0$$

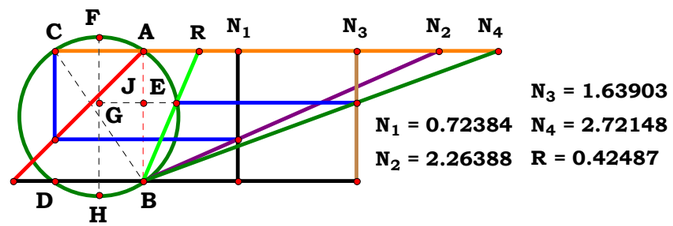
$$R - \frac{N_u \cdot \left[A \cdot C - \sqrt{C^2 \cdot (A - B)^2 + 4 \cdot A^2 \cdot D \cdot (C - D)} - B \cdot C\right]}{C \cdot E \cdot (A - B) - 2 \cdot A \cdot N_u \cdot (C - D) - E \cdot \sqrt{C^2 \cdot (A - B)^2 + 4 \cdot A^2 \cdot D \cdot (C - D)}} = 0$$

$N_1 - \frac{V}{l} = 0$ $N_2 - \frac{W}{m} = 0$ $N_3 - \frac{X}{n} = 0$ $N_4 - \frac{Y}{o} = 0$ $N_5 - \frac{Z}{p} = 0$

$$R - \frac{Z \cdot \left[\sqrt{Y^2 \cdot n^2 \cdot (V \cdot m - W \cdot l)^2 - 4 \cdot W^2 \cdot X \cdot l^2 \cdot o \cdot (X \cdot o - Y \cdot n)} + Y \cdot n \cdot (V \cdot m - W \cdot l)\right]}{p \cdot \sqrt{Y^2 \cdot n^2 \cdot (V \cdot m - W \cdot l)^2 - 4 \cdot W^2 \cdot X \cdot l^2 \cdot o \cdot (X \cdot o - Y \cdot n)} - 2 \cdot W \cdot Z \cdot l \cdot (X \cdot o - Y \cdot n) + Y \cdot n \cdot p \cdot (V \cdot m - W \cdot l)} = 0$$

$$\frac{N_5 \cdot \left(\sqrt{((N_2 \cdot N_4)^2 + N_1 \cdot N_4^2 \cdot (N_1 - 2 \cdot N_2)) - 4 \cdot N_2^2 \cdot N_3 \cdot (N_3 - N_4)} + N_4 \cdot (N_1 - N_2)\right)}{\left(\sqrt{((N_2 \cdot N_4)^2 + N_1 \cdot N_4^2 \cdot (N_1 - 2 \cdot N_2)) - 4 \cdot N_2^2 \cdot N_3 \cdot (N_3 - N_4)} + N_4 \cdot (N_1 - N_2)\right) - 2 \cdot N_2 \cdot N_5 \cdot (N_3 - N_4)} - R = 0.00000$$

4RST2AB6R4



$N_3 = 1.63903$
$N_1 = 0.72384$ $N_4 = 2.72148$
$N_2 = 2.26388$ $R = 0.42487$

Unit. $AB := 1$ **Given.** $N_1 := .72384$ $N_2 := 2.26388$ $N_3 := 1.63903$ $N_4 := 2.72148$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

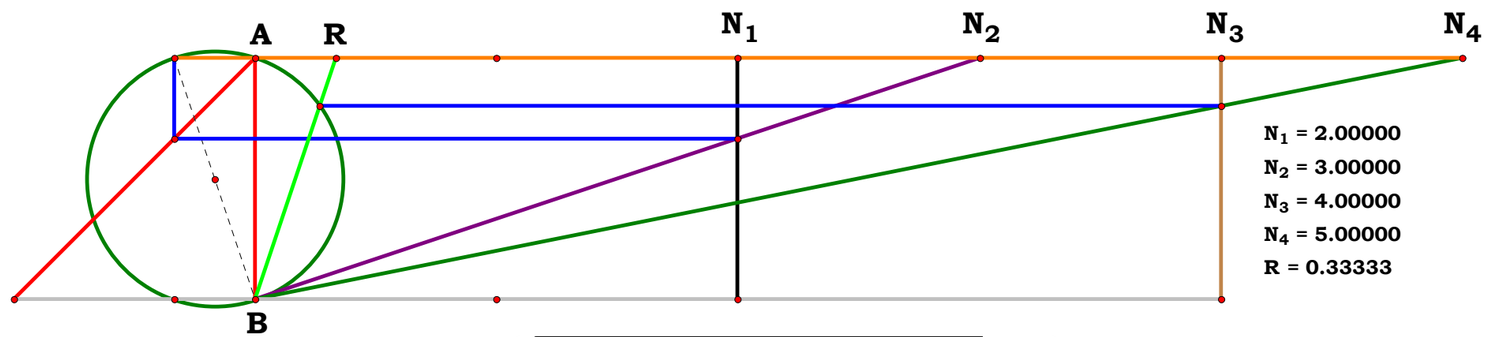
Descriptions.

$AC := \frac{N_2 - N_1}{N_2}$ $AE := \frac{N_4 - N_3}{N_4}$ $BE := AB - AE$

$FH := \sqrt{AB^2 + AC^2}$ $FG := AE + \frac{FH - AB}{2}$

$EG := \sqrt{FG \cdot (FH - FG)}$ $EJ := EG - \frac{AC}{2}$

$R := \frac{EJ \cdot AB}{BE}$ $R = 0.424872$



$N_1 = 2.00000$
$N_2 = 3.00000$
$N_3 = 4.00000$
$N_4 = 5.00000$
$R = 0.33333$

$$\frac{\left(\sqrt{\left(N_2^2 \cdot N_4^2 + N_1 \cdot N_4^2 \cdot (N_1 - 2 \cdot N_2)\right) - 4 \cdot N_2^2 \cdot N_3 \cdot (N_3 - N_4)} + N_1 \cdot N_4\right) - N_2 \cdot N_4}{2 \cdot N_2 \cdot N_3} - R = 0.00000$$

Definitions.

$$R - \frac{N_4 \cdot \sqrt{AC^2 \cdot N_4^2 - 4 \cdot N_3^2 + 4 \cdot N_3 \cdot N_4} - AC \cdot N_4 \cdot \sqrt{N_4^2}}{2 \cdot N_3 \cdot \sqrt{N_4^2}} = 0$$

$$R - \frac{\sqrt{N_2^2 \cdot N_4^2 + N_1 \cdot N_4^2 \cdot (N_1 - 2 \cdot N_2) - 4 \cdot N_2^2 \cdot N_3 \cdot (N_3 - N_4)} + N_4 \cdot (N_1 - N_2)}{2 \cdot N_2 \cdot N_3} = 0$$

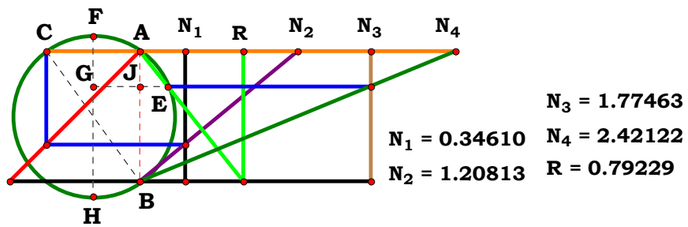
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{\sqrt{C^2 \cdot (A - B)^2 + 4 \cdot A^2 \cdot D \cdot (C - D)} - C \cdot (A - B)}{2 \cdot A \cdot D} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{\sqrt{Z^2 \cdot o^2 \cdot (W \cdot n - X \cdot m)^2 - 4 \cdot X^2 \cdot Y \cdot m^2 \cdot p \cdot (Y \cdot p - Z \cdot o)} + Z \cdot o \cdot (W \cdot n - X \cdot m)}{2 \cdot X \cdot Y \cdot m \cdot p} = 0$$

4RST2AB6R5



$N_1 = 0.34610$
$N_2 = 1.20813$
$N_3 = 1.77463$
$N_4 = 2.42122$
$R = 0.79229$

Unit. $AB := 1$ Given. $N_1 := .34610$ $N_2 := 1.20813$ $N_3 := 1.77463$ $N_4 := 2.42122$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

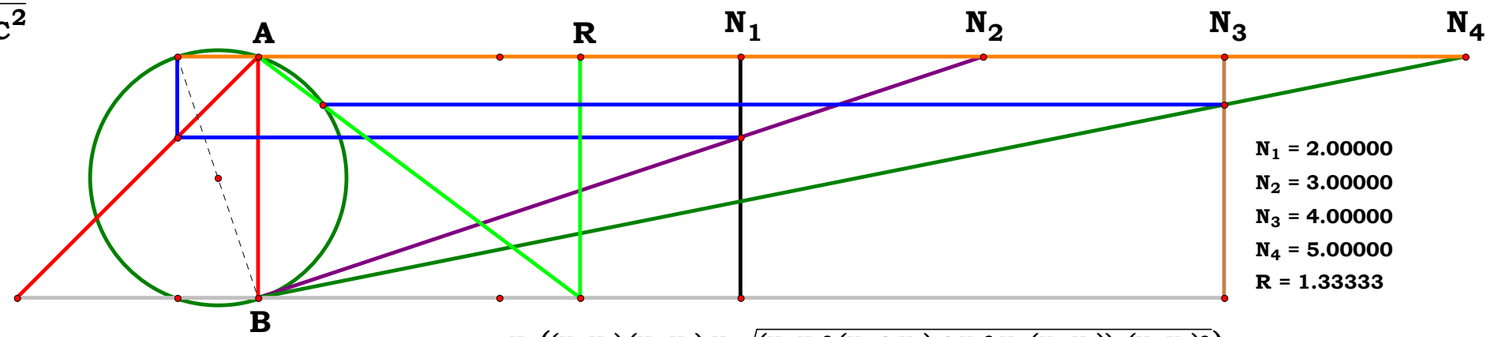
$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

$$AC := \frac{N_2 - N_1}{N_2} \qquad AJ := \frac{N_4 - N_3}{N_4} \qquad FH := \sqrt{AB^2 + AC^2}$$

$$FG := AJ + \frac{FH - AB}{2} \qquad EG := \sqrt{FG \cdot (FH - FG)}$$

$$EJ := EG - \frac{AC}{2} \qquad R := \frac{EJ \cdot AB}{AJ} \qquad R = 0.792287$$



$N_1 = 2.00000$
$N_2 = 3.00000$
$N_3 = 4.00000$
$N_4 = 5.00000$
$R = 1.33333$

$$\frac{N_4 \cdot ((N_2 \cdot N_4) \cdot (N_2 - N_1) - N_2 \cdot \sqrt{(N_1 \cdot N_4^2 \cdot (N_1 - 2 \cdot N_2) - 4 \cdot N_2^2 \cdot N_3 \cdot (N_3 - N_4)) + (N_2 \cdot N_4)^2})}{2 \cdot N_2 \cdot (N_2 \cdot N_4) \cdot (N_3 - N_4)} - R = 0.00000$$

Definitions.

$$R - \frac{N_4 \cdot \left(AC \cdot \sqrt{N_4^2} - \sqrt{AC^2 \cdot N_4^2 - 4 \cdot N_3^2 + 4 \cdot N_3 \cdot N_4}\right)}{2 \cdot (N_3 - N_4) \cdot \sqrt{N_4^2}} = 0$$

$$R - \frac{N_4 \cdot \left[N_2 \cdot N_4 \cdot (N_2 - N_1) - N_2 \cdot \sqrt{N_1 \cdot N_4^2 \cdot (N_1 - 2 \cdot N_2) - 4 \cdot N_2^2 \cdot N_3 \cdot (N_3 - N_4) + (N_2 \cdot N_4)^2}\right]}{2 \cdot N_2 \cdot (N_2 \cdot N_4) \cdot (N_3 - N_4)} = 0$$

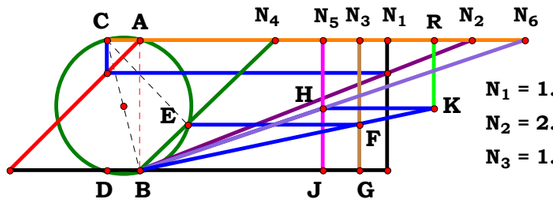
$$N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0 \quad N_4 - \frac{N_u}{D} = 0$$

$$R - \frac{\sqrt{C^2 \cdot (A - B)^2 + 4 \cdot A^2 \cdot D \cdot (C - D)} - C \cdot (A - B)}{2 \cdot A \cdot (C - D)} = 0$$

$$N_1 - \frac{W}{m} = 0 \quad N_2 - \frac{X}{n} = 0 \quad N_3 - \frac{Y}{o} = 0 \quad N_4 - \frac{Z}{p} = 0$$

$$R - \frac{\sqrt{W \cdot Z^2 \cdot n \cdot o^2 \cdot (W \cdot n - 2 \cdot X \cdot m) + 4 \cdot X^2 \cdot Y \cdot m^2 \cdot p \cdot (Z \cdot o - Y \cdot p) + X^2 \cdot Z^2 \cdot m^2 \cdot o^2} + Z \cdot o \cdot (W \cdot n - X \cdot m)}{2 \cdot X \cdot m \cdot (Z \cdot o - Y \cdot p)} = 0$$

4RST2AB6R6



$N_1 = 1.89582$
$N_2 = 2.54477$
$N_3 = 1.68746$
$N_4 = 1.03615$
$N_5 = 1.40444$
$N_6 = 2.95416$
$R = 2.26093$

Unit. $AB := 1$ **Given.** $N_1 := 1.89582$ $N_2 := 2.54477$ $N_3 := 1.68746$ $N_4 := 1.03615$ $N_5 := 1.40444$ $N_6 := 2.95416$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $F := \frac{N_u}{N_6}$

$U := 18$ $V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$k := \frac{U}{N_1}$ $l := \frac{V}{N_2}$ $m := \frac{W}{N_3}$ $n := \frac{X}{N_4}$ $o := \frac{Y}{N_5}$ $p := \frac{Z}{N_6}$

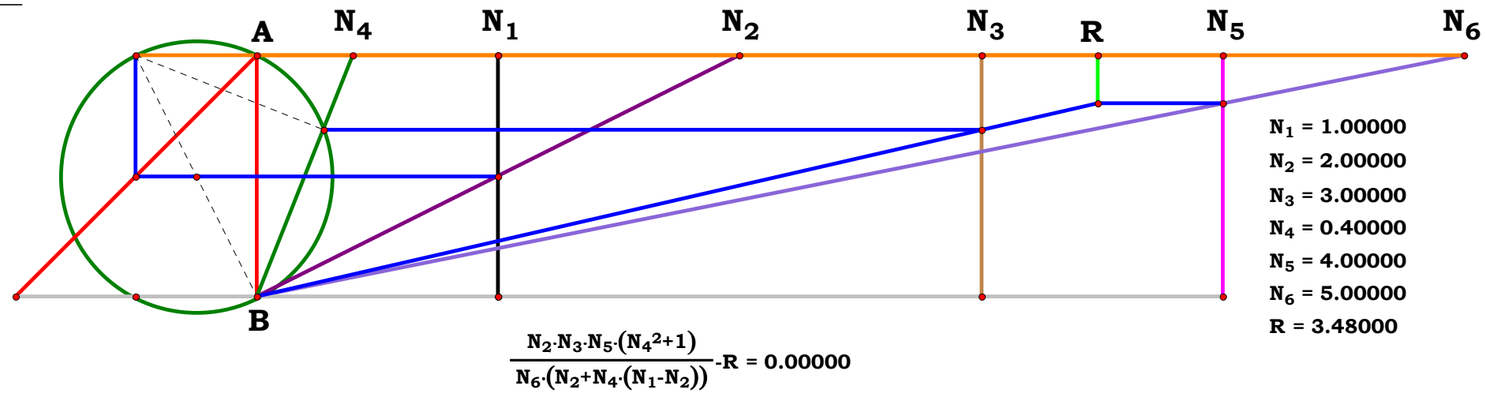
Descriptions.

$AC := \frac{N_2 - N_1}{N_2}$ $HN_5 := \frac{N_6 - N_5}{N_6}$ $HJ := AB - HN_5$

$BN_4 := \sqrt{N_4^2 + AB^2}$ $CN_4 := N_4 + AC$ $EN_4 := \frac{N_4 \cdot CN_4}{BN_4}$

$BE := BN_4 - EN_4$ $FG := \frac{AB \cdot BE}{BN_4}$

$R := \frac{N_3 \cdot HJ}{FG}$ $R = 2.260935$



$N_1 = 1.00000$
$N_2 = 2.00000$
$N_3 = 3.00000$
$N_4 = 0.40000$
$N_5 = 4.00000$
$N_6 = 5.00000$
$R = 3.48000$

$\frac{N_2 \cdot N_3 \cdot N_5 \cdot (N_4^2+1)}{N_6 \cdot (N_2+N_4 \cdot (N_1-N_2))} - R = 0.00000$

Definitions.

$R - \frac{N_3 \cdot N_5 \cdot \left(N_4^2 + 1\right)}{N_6 - AC \cdot N_4 \cdot N_6} = 0$

$R - \frac{N_2 \cdot N_3 \cdot N_5 \cdot \left(N_4^2 + 1\right)}{N_6 \cdot \left[N_2 + N_4 \cdot \left(N_1 - N_2\right)\right]} = 0$

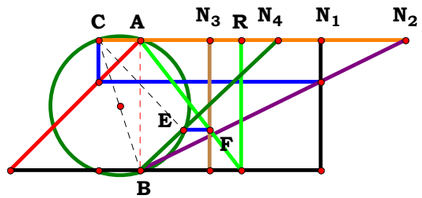
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$ $N_6 - \frac{N_u}{F} = 0$

$R - \frac{A \cdot F \cdot N_u \cdot \left(D^2 + N_u^2\right)}{C \cdot D \cdot E \cdot \left[A \cdot D - N_u \cdot (A - B)\right]} = 0$

$N_1 - \frac{U}{k} = 0$ $N_2 - \frac{V}{l} = 0$ $N_3 - \frac{W}{m} = 0$ $N_4 - \frac{X}{n} = 0$ $N_5 - \frac{Y}{o} = 0$ $N_6 - \frac{Z}{p} = 0$

$R - \frac{V \cdot W \cdot Y \cdot k \cdot p \cdot \left(X^2 + n^2\right)}{V \cdot Z \cdot k \cdot m \cdot n^2 \cdot o + X \cdot Z \cdot m \cdot n \cdot o \cdot (U \cdot l - V \cdot k)} = 0$

4RST2AB6R7



$N_1 = 1.38247$
$N_2 = 2.03142$
$N_3 = 0.53485$
$N_4 = 1.05552$
$R = 0.77912$

Unit. $AB := 1$ Given. $N_1 := 1.38247$ $N_2 := 2.03142$ $N_3 := .53485$ $N_4 := 1.05552$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

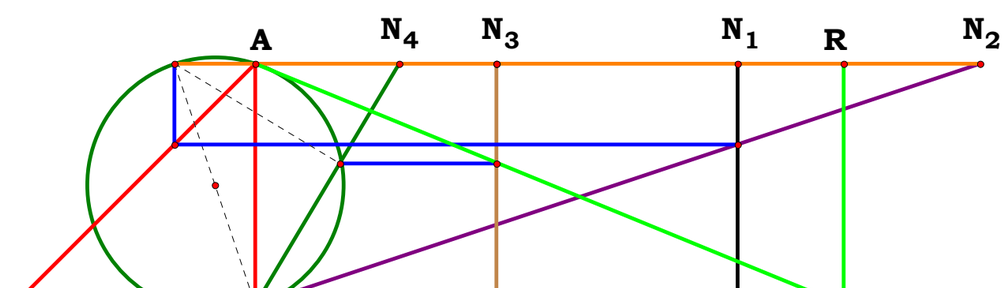
$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

$AC := \frac{N_2 - N_1}{N_2}$ $CN_4 := N_4 + AC$

$BN_4 := \sqrt{N_4^2 + AB^2}$ $EN_4 := \frac{N_4 \cdot CN_4}{BN_4}$

$FN_3 := \frac{AB \cdot EN_4}{BN_4}$ $R := \frac{N_3 \cdot AB}{FN_3}$ $R = 0.779113$



Definitions.

$$R - \frac{N_3 \cdot \left(N_4^2 + 1\right)}{N_4 \cdot (AC + N_4)} = 0$$

$$R - \frac{N_2 \cdot N_3 \cdot \left(N_4^2 + 1\right)}{N_4 \cdot (N_2 - N_1 + N_2 \cdot N_4)} = 0$$

$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{A \cdot \left(D^2 + N_u^2\right)}{C \cdot \left[D \cdot (A - B) + A \cdot N_u\right]} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

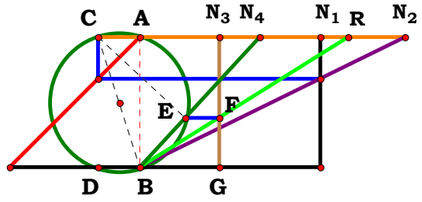
$$R - \frac{X \cdot Y \cdot m \cdot \left(Z^2 + p^2\right)}{X \cdot Z^2 \cdot m \cdot o - Z \cdot o \cdot p \cdot (W \cdot n - X \cdot m)} = 0$$

B

$N_1 = 2.00000$
$N_2 = 3.00000$
$N_3 = 1.00000$
$N_4 = 0.59870$
$R = 2.43445$

$$\frac{N_2 \cdot N_3 \cdot (N_4^2 + 1)}{N_4 \cdot ((N_2 - N_1) + N_2 \cdot N_4)} - R = 0.00000$$

4RST2AB6R8



$N_1 = 1.38247$
$N_2 = 2.03142$
$N_3 = 0.61234$
$N_4 = 0.91992$
$R = 1.60104$

Unit. $AB := 1$ Given. $N_1 := 1.38247$ $N_2 := 2.03142$ $N_3 := .61234$ $N_4 := .91992$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

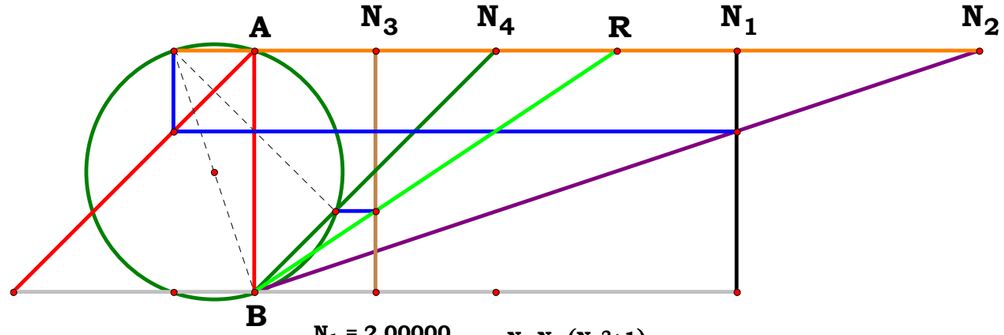
Descriptions.

$AC := \frac{N_2 - N_1}{N_2}$ $CN_4 := N_4 + AC$

$BN_4 := \sqrt{N_4^2 + AB^2}$ $EN_4 := \frac{N_4 \cdot CN_4}{BN_4}$

$BE := BN_4 - EN_4$ $R := \frac{N_3 \cdot BN_4}{BE}$

$R = 1.601038$



$N_1 = 2.00000$
$N_2 = 3.00000$
$N_3 = 0.50000$
$N_4 = 1.00000$
$R = 1.50000$

$\frac{N_2 \cdot N_3 \cdot (N_4^2+1)}{N_2+N_4 \cdot (N_1-N_2)} - R = 0.00000$

Definitions.

$R - \frac{N_3 \cdot (N_4^2 + 1)}{1 - AC \cdot N_4} = 0$

$R - \frac{N_2 \cdot N_3 \cdot (N_4^2 + 1)}{N_2 + N_4 \cdot (N_1 - N_2)} = 0$

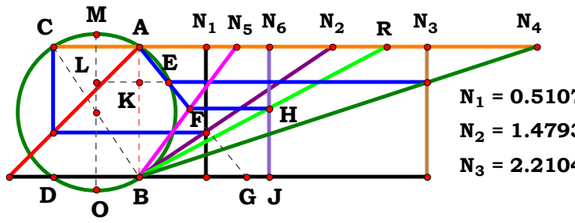
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$R - \frac{A \cdot N_u \cdot (D^2 + N_u^2)}{C \cdot D \cdot [A \cdot D - N_u \cdot (A - B)]} = 0$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$R - \frac{X \cdot Y \cdot m \cdot (Z^2 + p^2)}{o \cdot p \cdot (W \cdot Z \cdot n - X \cdot Z \cdot m + X \cdot m \cdot p)} = 0$

4RST2AB6R9



$N_1 = 0.51075$ $N_4 = 3.05079$

$N_2 = 1.47933$ $N_5 = 0.74581$

$N_3 = 2.21049$ $N_6 = 0.99764$

$R = 1.90254$

Unit. $AB := 1$ **Given.** $N_1 := .51075$ $N_2 := 1.47933$ $N_3 := 2.21049$

$N_4 := 3.05079$ $N_5 := .74581$ $N_6 := .99764$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $F := \frac{N_u}{N_6}$

$U := 18$ $V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$k := \frac{U}{N_1}$ $l := \frac{V}{N_2}$ $m := \frac{W}{N_3}$ $n := \frac{X}{N_4}$ $o := \frac{Y}{N_5}$ $p := \frac{Z}{N_6}$

Descriptions.

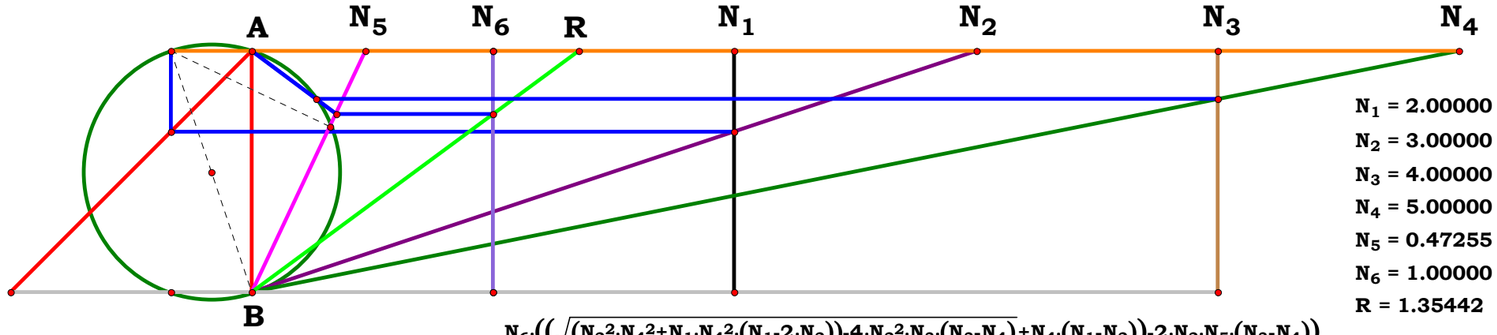
$AC := \frac{N_2 - N_1}{N_2}$ $AK := \frac{N_4 - N_3}{N_4}$

$MO := \sqrt{AB^2 + AC^2}$ $ML := AK + \frac{MO - AB}{2}$

$EL := \sqrt{ML \cdot (MO - ML)}$ $EK := EL - \frac{AC}{2}$

$BG := \frac{EK \cdot AB}{AK}$ $HJ := \frac{BG}{BG + N_5}$

$R := \frac{N_6}{HJ}$ $R = 1.902555$



$N_1 = 2.00000$

$N_2 = 3.00000$

$N_3 = 4.00000$

$N_4 = 5.00000$

$N_5 = 0.47255$

$N_6 = 1.00000$

$R = 1.35442$

$$\frac{N_6\cdot\left(\left(\sqrt{\left(N_2^2\cdot N_4^2+N_1\cdot N_4^2\cdot\left(N_1-2\cdot N_2\right)\right)-4\cdot N_2^2\cdot N_3\cdot\left(N_3-N_4\right)}+N_4\cdot\left(N_1-N_2\right)\right)-2\cdot N_2\cdot N_5\cdot\left(N_3-N_4\right)\right)}{\left(\sqrt{\left(N_2^2\cdot N_4^2+N_1\cdot N_4^2\cdot\left(N_1-2\cdot N_2\right)\right)-4\cdot N_2^2\cdot N_3\cdot\left(N_3-N_4\right)}+N_1\cdot N_4\right)-N_2\cdot N_4}-R = 0.00000$$

Definitions.

$$R - \frac{N_6\cdot\left[\sqrt{N_4^2}\cdot\left(AC\cdot N_4+2\cdot N_3\cdot N_5-2\cdot N_4\cdot N_5\right)-N_4\cdot\sqrt{AC^2\cdot N_4^2-4\cdot N_3^2+4\cdot N_3\cdot N_4}\right]}{N_4\cdot\left(AC\cdot\sqrt{N_4^2}-\sqrt{AC^2\cdot N_4^2-4\cdot N_3^2+4\cdot N_3\cdot N_4}\right)} = 0$$

$$R - \frac{N_6\cdot\left[\sqrt{N_2^2\cdot N_4^2+N_1\cdot N_4^2\cdot\left(N_1-2\cdot N_2\right)-4\cdot N_2^2\cdot N_3\cdot\left(N_3-N_4\right)}+N_4\cdot\left(N_1-N_2\right)-2\cdot N_2\cdot N_5\cdot\left(N_3-N_4\right)\right]}{\sqrt{N_2^2\cdot N_4^2+N_1\cdot N_4^2\cdot\left(N_1-2\cdot N_2\right)-4\cdot N_2^2\cdot N_3\cdot\left(N_3-N_4\right)}+N_1\cdot N_4-N_2\cdot N_4} = 0$$

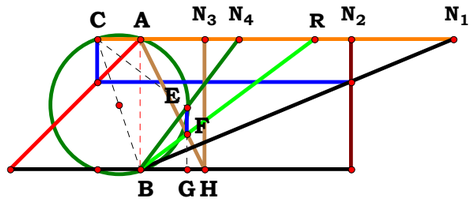
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$ $N_6 - \frac{N_u}{F} = 0$

$$R - \frac{N_u\cdot\left[A\cdot C\cdot E-E\cdot\sqrt{C^2\cdot(A-B)^2+4\cdot A^2\cdot D\cdot(C-D)}-B\cdot C\cdot E-2\cdot A\cdot N_u\cdot(C-D)\right]}{E\cdot F\cdot\left[A\cdot C-\sqrt{C^2\cdot(A-B)^2+4\cdot A^2\cdot D\cdot(C-D)}-B\cdot C\right]} = 0$$

$N_1 - \frac{U}{k} = 0$ $N_2 - \frac{V}{l} = 0$ $N_3 - \frac{W}{m} = 0$ $N_4 - \frac{X}{n} = 0$ $N_5 - \frac{Y}{o} = 0$ $N_6 - \frac{Z}{p} = 0$

$$R - \frac{Z\cdot\left[o\cdot\sqrt{4\cdot V^2\cdot W\cdot k^2\cdot n\cdot(X\cdot m-W\cdot n)+X^2\cdot m^2\cdot(U\cdot l-V\cdot k)^2}-2\cdot V\cdot Y\cdot k\cdot(W\cdot n-X\cdot m)+X\cdot m\cdot o\cdot(U\cdot l-V\cdot k)\right]}{o\cdot p\cdot\left[\sqrt{4\cdot V^2\cdot W\cdot k^2\cdot n\cdot(X\cdot m-W\cdot n)+X^2\cdot m^2\cdot(U\cdot l-V\cdot k)^2}+X\cdot m\cdot(U\cdot l-V\cdot k)\right]} = 0$$

4RST3AB1R0



$N_1 = 2.39948$
$N_2 = 1.61493$
$N_3 = 0.49611$
$N_4 = 0.75526$
$R = 1.34142$

Unit. $AB := 1$ Given. $N_1 := 2.39948$ $N_2 := 1.61493$ $N_3 := 0.49611$ $N_4 := .75526$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

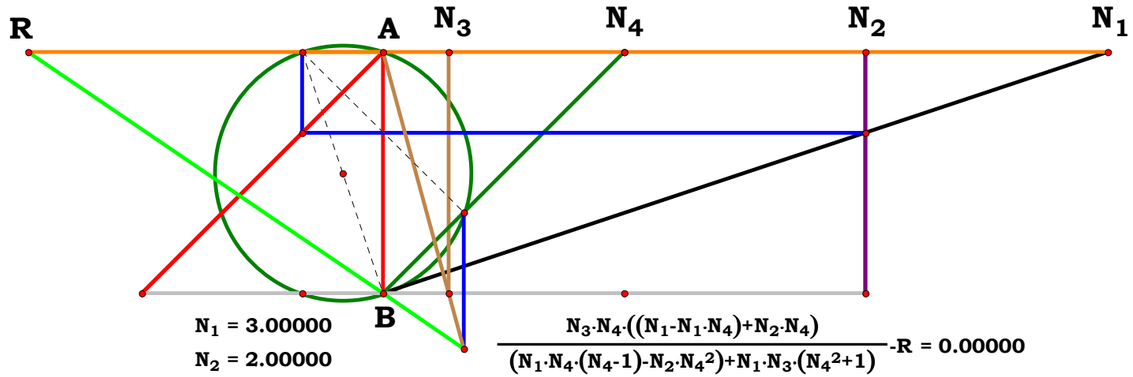
Descriptions.

$$AC := \frac{N_1 - N_2}{N_1} \qquad CN_4 := N_4 + AC \qquad BN_4 := \sqrt{N_4^2 + AB^2}$$

$$EN_4 := \frac{N_4 \cdot CN_4}{BN_4} \qquad BE := BN_4 - EN_4$$

$$BG := \frac{N_4 \cdot BE}{BN_4} \qquad FG := \frac{AB \cdot (N_3 - BG)}{N_3}$$

$$R := \frac{BG \cdot AB}{FG} \qquad R = 1.341417$$



$N_1 = 3.00000$
$N_2 = 2.00000$
$N_3 = 0.27178$
$N_4 = 1.00000$
$R = -1.47179$

$$\frac{N_3 \cdot N_4 \cdot ((N_1 - N_1 \cdot N_4) + N_2 \cdot N_4)}{(N_1 \cdot N_4 \cdot (N_4 - 1) - N_2 \cdot N_4^2) + N_1 \cdot N_3 \cdot (N_4^2 + 1)} - R = 0.00000$$

Definitions.

$$R - \frac{N_3 \cdot N_4 \cdot (AC \cdot N_4 - 1)}{N_4 - N_3 - N_3 \cdot N_4^2 - AC \cdot N_4^2} = 0$$

$$R - \frac{N_3 \cdot N_4 \cdot (N_1 - N_1 \cdot N_4 + N_2 \cdot N_4)}{N_1 \cdot N_4 \cdot (N_4 - 1) - N_2 \cdot N_4^2 + N_1 \cdot N_3 \cdot (N_4^2 + 1)} = 0$$

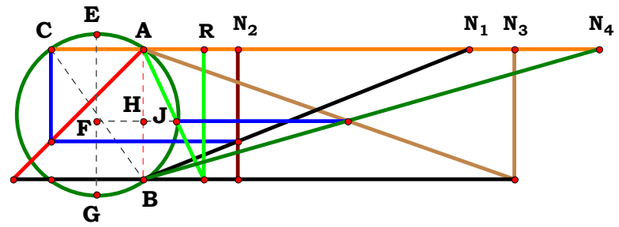
$$N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0 \quad N_4 - \frac{N_u}{D} = 0$$

$$R - \frac{N_u \cdot [B \cdot D + N_u \cdot (A - B)]}{B \cdot N_u^2 + N_u \cdot C \cdot (B - A) + B \cdot D \cdot (D - C)} = 0$$

$$N_1 - \frac{W}{m} = 0 \quad N_2 - \frac{X}{n} = 0 \quad N_3 - \frac{Y}{o} = 0 \quad N_4 - \frac{Z}{p} = 0$$

$$R - \frac{Y \cdot Z \cdot (X \cdot Z \cdot m - W \cdot Z \cdot n + W \cdot n \cdot p)}{Y \cdot W \cdot n \cdot (Z^2 + p^2) + [W \cdot Z \cdot n \cdot o \cdot (Z - p) - X \cdot Z^2 \cdot m \cdot o]} = 0$$

4RST3AB1R1



$N_1 = 2.49634$
$N_2 = 0.72384$
$N_3 = 2.84976$
$N_4 = 3.49634$
$R = 0.46480$

Unit. $AB := 1$ Given. $N_1 := 2.49634$ $N_2 := .72384$ $N_3 := 2.84976$ $N_4 := 3.49634$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

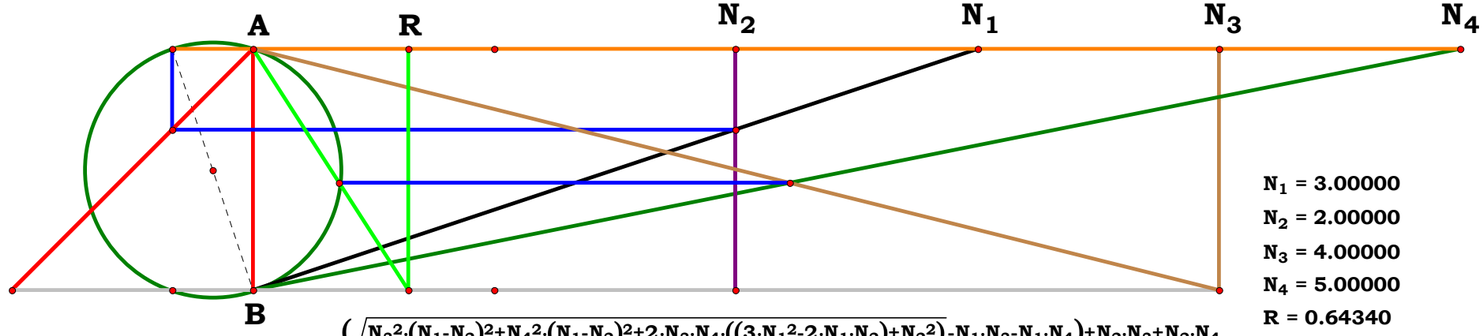
$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

$$AC := \frac{N_1 - N_2}{N_1} \qquad AH := \frac{AB \cdot N_4}{N_4 + N_3} \qquad EG := \sqrt{AB^2 + AC^2}$$

$$EF := AH + \frac{(EG - AB)}{2} \qquad FJ := \sqrt{EF \cdot (EG - EF)}$$

$$HJ := FJ - \frac{AC}{2} \qquad R := \frac{HJ \cdot AB}{AH} \qquad R = 0.464804$$



$N_1 = 3.00000$
$N_2 = 2.00000$
$N_3 = 4.00000$
$N_4 = 5.00000$
$R = 0.64340$

$$\frac{\left(\sqrt{N_3^2 \cdot (N_1 - N_2)^2 + N_4^2 \cdot (N_1 - N_2)^2 + 2 \cdot N_3 \cdot N_4 \cdot \left((3 \cdot N_1^2 - 2 \cdot N_1 \cdot N_2) + N_2^2\right)} - N_1 \cdot N_3 - N_1 \cdot N_4\right) + N_2 \cdot N_3 + N_2 \cdot N_4}{2 \cdot N_1 \cdot N_4} - R = 0.00000$$

Definitions.

$$R - \frac{\left[\sqrt{AC^2 \cdot N_3^2 + 2 \cdot AC^2 \cdot N_3 \cdot N_4 + AC^2 \cdot N_4^2 + 4 \cdot N_3 \cdot N_4} - AC \cdot \sqrt{(N_3 + N_4)^2}\right] \cdot (N_3 + N_4)}{2 \cdot N_4 \cdot \sqrt{(N_3 + N_4)^2}} = 0$$

$$R - \frac{\sqrt{\left(N_3^2 + N_4^2\right) \cdot (N_1 - N_2)^2 + 2 \cdot N_3 \cdot N_4 \cdot \left(3 \cdot N_1^2 - 2 \cdot N_1 \cdot N_2 + N_2^2\right)} - (N_3 + N_4) \cdot (N_1 - N_2)}{2 \cdot N_1 \cdot N_4} = 0$$

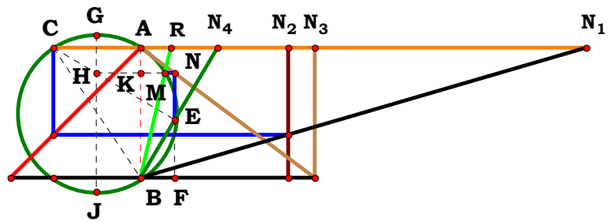
$$N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0 \quad N_4 - \frac{N_u}{D} = 0$$

$$R - \frac{(C + D) \cdot (A - B) + \sqrt{\left(C^2 + D^2\right) \cdot (A - B)^2 + 2 \cdot C \cdot D \cdot \left(A^2 - 2 \cdot A \cdot B + 3 \cdot B^2\right)}}{2 \cdot B \cdot C} = 0$$

$$N_1 - \frac{W}{m} = 0 \quad N_2 - \frac{X}{n} = 0 \quad N_3 - \frac{Y}{o} = 0 \quad N_4 - \frac{Z}{p} = 0$$

$$R - \frac{\sqrt{W^2 \cdot n^2 \cdot \left(Y^2 \cdot p^2 + 6 \cdot Y \cdot Z \cdot o \cdot p + Z^2 \cdot o^2\right) + X \cdot m \cdot (Y \cdot p + Z \cdot o)^2 \cdot (X \cdot m - 2 \cdot W \cdot n)} - (Y \cdot p + Z \cdot o) \cdot (W \cdot n - X \cdot m)}{2 \cdot W \cdot Z \cdot n \cdot o} = 0$$

4RST3AB1R2



$N_1 = 3.41649$
$N_2 = 1.13064$
$N_3 = 1.33877$
$N_4 = 0.59060$
$R = 0.23145$

Unit. $AB := 1$ Given. $N_1 := 3.41649$ $N_2 := 1.13064$ $N_3 := 1.33877$ $N_4 := .59060$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

$AC := \frac{N_1 - N_2}{N_1}$ $CN_4 := N_4 + AC$

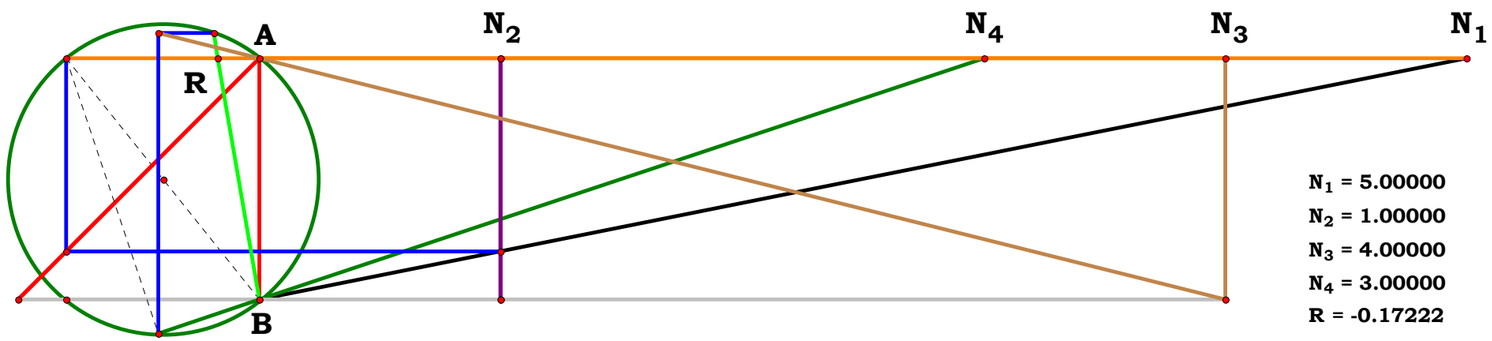
$BN_4 := \sqrt{N_4^2 + AB^2}$ $EN_4 := \frac{N_4 \cdot CN_4}{BN_4}$

$BF := \frac{N_4 \cdot (BN_4 - EN_4)}{BN_4}$ $AK := \frac{AB \cdot BF}{N_3}$

$GJ := \sqrt{AB^2 + AC^2}$ $GH := AK + \frac{GJ - AB}{2}$

$HM := \sqrt{GH \cdot (GJ - GH)}$ $KM := HM - \frac{AC}{2}$

$R := \frac{KM \cdot AB}{AB - AK}$ $R = 0.23145$



$N_1 = 5.00000$
$N_2 = 1.00000$
$N_3 = 4.00000$
$N_4 = 3.00000$
$R = -0.17222$

$$\frac{(((\sqrt{4 \cdot N_4 \cdot ((N_1 - N_1 \cdot N_4) + N_2 \cdot N_4) \cdot ((((N_1 - N_2) + N_1 \cdot N_3) \cdot N_4^2 - N_1 \cdot N_4) + N_1 \cdot N_3) + N_3^2 \cdot (N_4^2 + 1)^2 \cdot (N_1 - N_2)^2} - N_1 \cdot N_3) + N_2 \cdot N_3) - N_1 \cdot N_3 \cdot N_4^2) + N_2 \cdot N_3 \cdot N_4^2}{2 \cdot ((((N_1 \cdot N_4^2 - N_2 \cdot N_4^2) + N_1 \cdot N_3) - N_1 \cdot N_4) + N_1 \cdot N_3 \cdot N_4^2)} - R = 0.00000$$

Definitions.

$$R - \frac{N_3 \cdot (N_4^2 + 1) \cdot \left[AC \cdot \sqrt{\left[N_3 \cdot (N_4^2 + 1)\right]^2} - \sqrt{AC \cdot N_3 \cdot N_4^2 \cdot (2 \cdot AC \cdot N_3 - 4 \cdot N_4^2 + AC \cdot N_3 \cdot N_4^2 - 4) + AC^2 \cdot N_3^2 - 4 \cdot AC \cdot N_4^3 \cdot (AC \cdot N_4 - 2) + 4 \cdot N_3 \cdot N_4 \cdot (N_4^2 + 1) - 4 \cdot N_4^2}\right]}{2 \cdot \sqrt{\left[N_3 \cdot (N_4^2 + 1)\right]^2} \cdot (N_4 - N_3 - N_3 \cdot N_4^2 - AC \cdot N_4^2)} = 0$$

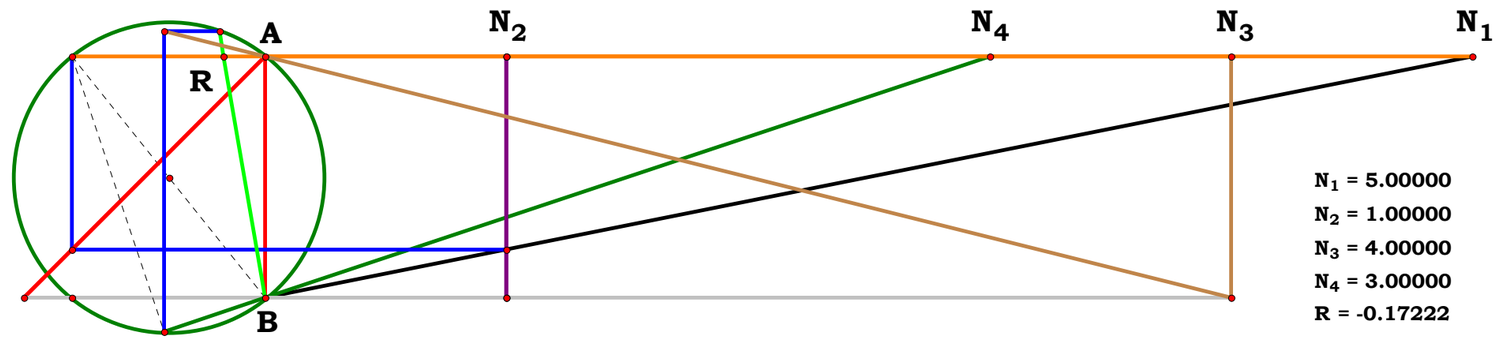
$$R - \frac{\sqrt{4 \cdot N_4 \cdot (N_1 - N_1 \cdot N_4 + N_2 \cdot N_4) \cdot \left[(N_1 - N_2 + N_1 \cdot N_3) \cdot N_4^2 - N_1 \cdot N_4 + N_1 \cdot N_3\right] + N_3^2 \cdot (N_4^2 + 1)^2 \cdot (N_1 - N_2)^2} - N_3 \cdot (N_4^2 + 1) \cdot (N_1 - N_2)}{2 \cdot (N_1 \cdot N_4^2 - N_2 \cdot N_4^2 + N_1 \cdot N_3 - N_1 \cdot N_4 + N_1 \cdot N_3 \cdot N_4^2)} = 0$$

$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{(D^2 + N_u^2) \cdot (B - A) - \sqrt{(D^2 + N_u^2)^2 \cdot (A - B)^2 - 4 \cdot C^2 \cdot \left[B \cdot D + N_u \cdot (A - B)\right]^2 + 4 \cdot B \cdot C \cdot (D^2 + N_u^2) \cdot (B \cdot D + A \cdot N_u - B \cdot N_u)}}{2 \cdot (B \cdot C \cdot D - B \cdot N_u^2 - B \cdot D^2 + A \cdot C \cdot N_u - B \cdot C \cdot N_u)} = 0$$

$$N_1 - \frac{W}{m} = 0 \quad N_2 - \frac{X}{n} = 0 \quad N_3 - \frac{Y}{o} = 0 \quad N_4 - \frac{Z}{p} = 0$$

$$R - \frac{\sqrt{Y^2 \cdot \left(Z^2 + p^2\right)^2 \cdot (W \cdot n - X \cdot m)^2 + 4 \cdot Z \cdot o \cdot (X \cdot Z \cdot m - W \cdot Z \cdot n + W \cdot n \cdot p) \cdot \left[Z^2 \cdot (W \cdot Y \cdot n + W \cdot n \cdot o - X \cdot m \cdot o) + W \cdot n \cdot p \cdot (Y \cdot p - Z \cdot o)\right]} - Y \cdot \left(Z^2 + p^2\right) \cdot (W \cdot n - X \cdot m)}{2 \cdot \left(W \cdot Y \cdot Z^2 \cdot n + W \cdot Y \cdot n \cdot p^2 + W \cdot Z^2 \cdot n \cdot o - X \cdot Z^2 \cdot m \cdot o - W \cdot Z \cdot n \cdot o \cdot p\right)} = 0$$



$$\frac{\left(\left(\sqrt{4 \cdot N_4 \cdot ((N_1 - N_1 \cdot N_4) + N_2 \cdot N_4) \cdot ((((N_1 - N_2) + N_1 \cdot N_3) \cdot N_4^2 - N_1 \cdot N_4) + N_1 \cdot N_3) + N_3^2 \cdot (N_4^2 + 1)^2 \cdot (N_1 - N_2)^2} - N_1 \cdot N_3\right) + N_2 \cdot N_3\right) - N_1 \cdot N_3 \cdot N_4^2) + N_2 \cdot N_3 \cdot N_4^2}{2 \cdot ((((N_1 \cdot N_4^2 - N_2 \cdot N_4^2) + N_1 \cdot N_3) - N_1 \cdot N_4) + N_1 \cdot N_3 \cdot N_4^2)} - R = 0.00000$$

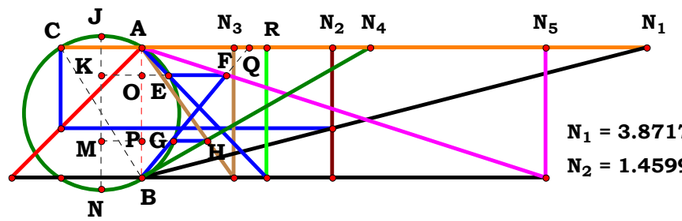
4RST3AB1R3

Unit.

$AB := 1$

Given.

$N_1 := 3.87172$ $N_2 := 1.45996$ $N_3 := .70920$ $N_4 := 1.75290$ $N_5 := 3.09945$



$N_1 = 3.87172$
$N_2 = 1.45996$

$N_3 = 0.70920$
$N_4 = 1.75290$
$N_5 = 3.09945$
$R = 0.95741$

Descriptions.

$$AC := \frac{N_1 - N_2}{N_1} \qquad BP := \frac{AB \cdot N_3}{N_3 + N_4} \qquad JN := \sqrt{AB^2 + AC^2}$$

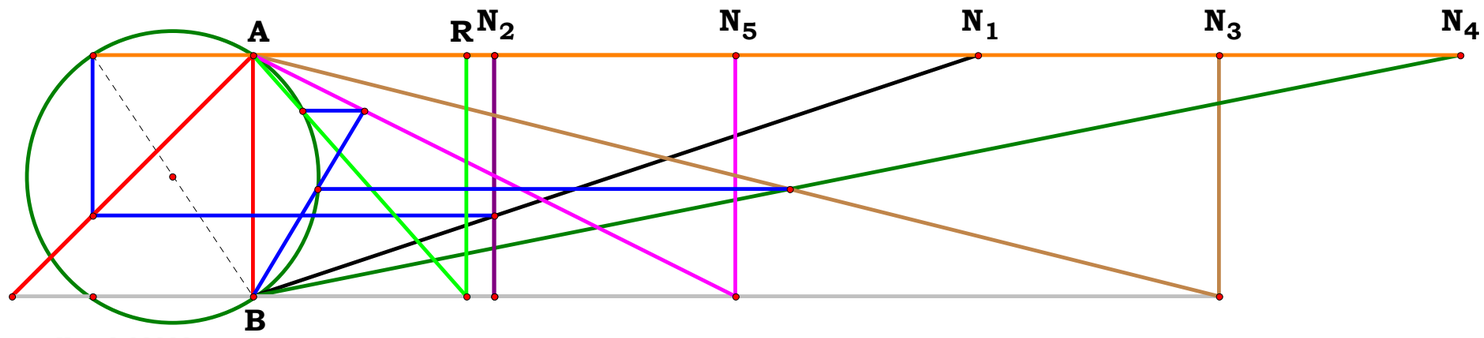
$$JM := JN - \left(BP + \frac{JN - AB}{2}\right) \qquad GM := \sqrt{JM \cdot (JN - JM)}$$

$$PG := GM - \frac{AC}{2} \qquad AQ := \frac{PG \cdot AB}{BP} \qquad AO := \frac{AB \cdot AQ}{AQ + N_5}$$

$$JK := AO + \frac{JN - AB}{2} \qquad EK := \sqrt{JK \cdot (JN - JK)}$$

$$EO := EK - \frac{AC}{2} \qquad R := \frac{EO \cdot AB}{AO}$$

$R = 0.957407$



$N_1 = 3.00000$
$N_2 = 1.00000$
$N_3 = 4.00000$
$N_4 = 5.00000$
$N_5 = 2.00000$
$R = 0.88542$

$AB = 1.00000$
$AC = 0.66667$
$BP = 0.44444$
$JN = 1.20185$
$JM = 0.65648$
$GM = 0.59835$

$PG = 0.26502$
$AQ = 0.59629$
$AO = 0.22967$
$JK = 0.33060$
$EK = 0.53669$
$EO = 0.20335$

$R - \frac{EO \cdot AB}{AO} = 0.00000$

$$AC - \frac{N_1 - N_2}{N_1} = 0 \qquad BP - \frac{N_3}{N_3 + N_4} = 0 \qquad JN - \frac{\sqrt{2 \cdot N_1^2 - 2 \cdot N_1 \cdot N_2 + N_2^2}}{N_1} = 0 \qquad JM - \frac{\sqrt{2 \cdot N_1^2 - 2 \cdot N_1 \cdot N_2 + N_2^2} \cdot (N_3 + N_4) - N_1 \cdot (N_3 - N_4)}{2 \cdot N_1 \cdot (N_3 + N_4)} = 0$$

$$GM - \frac{\sqrt{N_1^2 \cdot (N_3^2 + 6 \cdot N_3 \cdot N_4 + N_4^2) - N_2 \cdot (N_3 + N_4)^2 \cdot (2 \cdot N_1 - N_2)}}{2 \cdot N_1 \cdot (N_3 + N_4)} = 0 \qquad PG - \frac{\sqrt{N_1^2 \cdot (N_3^2 + 6 \cdot N_3 \cdot N_4 + N_4^2) - N_2 \cdot (N_3 + N_4)^2 \cdot (2 \cdot N_1 - N_2)} - (N_3 + N_4) \cdot (N_1 - N_2)}{2 \cdot N_1 \cdot (N_3 + N_4)} = 0$$

$$AQ - \left[\frac{\left[\sqrt{N_1^2 \cdot (N_3^2 + 6 \cdot N_3 \cdot N_4 + N_4^2) + N_2 \cdot (N_3 + N_4)^2 \cdot (N_2 - 2 \cdot N_1)} - (N_3 + N_4) \cdot (N_1 - N_2)\right]}{2 \cdot N_1 \cdot N_3}\right] = 0$$

$$AO - \frac{\sqrt{N_1^2 \cdot (N_3^2 + 6 \cdot N_3 \cdot N_4 + N_4^2) + N_2 \cdot (N_3 + N_4)^2 \cdot (N_2 - 2 \cdot N_1)} - (N_3 + N_4) \cdot (N_1 - N_2)}{\sqrt{N_1^2 \cdot (N_3^2 + 6 \cdot N_3 \cdot N_4 + N_4^2) + N_2 \cdot (N_3 + N_4)^2 \cdot (N_2 - 2 \cdot N_1)} - (N_3 + N_4) \cdot (N_1 - N_2) + 2 \cdot N_1 \cdot N_3 \cdot N_5} = 0$$

Etc.

4RST3AB1R4

Unit.

$AB := 1$

Given.

$N_1 := 5.29553$

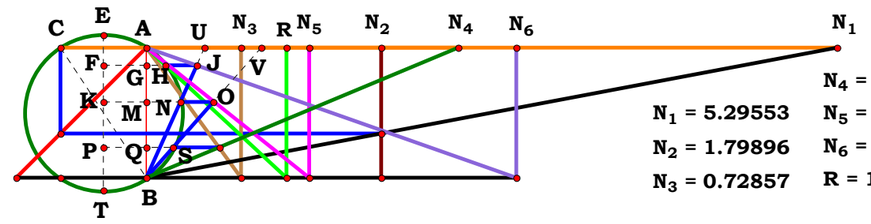
$N_2 := 1.79896$

$N_3 := .72857$

$N_4 := 2.39216$

$N_5 := 1.24947$

$N_6 := 2.83793$



N_1 = 5.29553 N_4 = 2.39216

N_2 = 1.79896 N_5 = 1.24947

N_3 = 0.72857 N_6 = 2.83793

R = 1.07055

Descriptions.

$$AC := \frac{N_1 - N_2}{N_1} \qquad BQ := \frac{AB \cdot N_3}{N_3 + N_4}$$

$$ET := \sqrt{AB^2 + AC^2} \qquad EP := ET - \left(BQ + \frac{ET - AB}{2}\right)$$

$$PS := \sqrt{EP \cdot (ET - EP)} \qquad QS := PS - \frac{AC}{2}$$

$$AV := \frac{QS \cdot AB}{BQ} \qquad BM := \frac{AB \cdot N_5}{AV + N_5}$$

$$KT := BM + \frac{ET - AB}{2}$$

$$KN := \sqrt{KT \cdot (ET - KT)}$$

$$MN := KN - \frac{AC}{2}$$

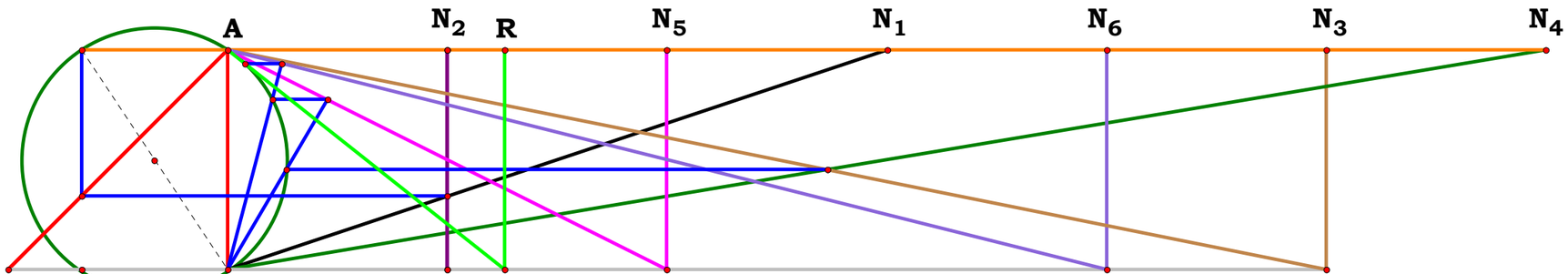
$$AU := \frac{MN \cdot AB}{BM}$$

$$BG := \frac{AB \cdot N_6}{AU + N_6} \qquad AG := AB - BG$$

$$EF := AG + \frac{ET - AB}{2} \qquad FH := \sqrt{EF \cdot (ET - EF)}$$

$$GH := FH - \frac{AC}{2} \qquad R := \frac{GH \cdot AB}{AG}$$

$R = 1.070553$



N_1 = 3.00000 AB = 1.00000 AV = 0.58491 AG = 0.06117

N_2 = 1.00000 AC = 0.66667 BM = 0.77372 EF = 0.16209

N_3 = 5.00000 BQ = 0.45455 KT = 0.87465 FH = 0.41053

N_4 = 6.00000 ET = 1.20185 KN = 0.53497 GH = 0.07720

N_5 = 2.00000 EP = 0.64638 MN = 0.20163 $R - \frac{GH \cdot AB}{AG}$ = 0.00000

N_6 = 4.00000 PS = 0.59920 AU = 0.26060

R = 1.26211 QS = 0.26587 BG = 0.93883

Definitions.

4RST3AB1R5

Unit.

$AB := 1$

Given.

$N_1 := 3.59083$

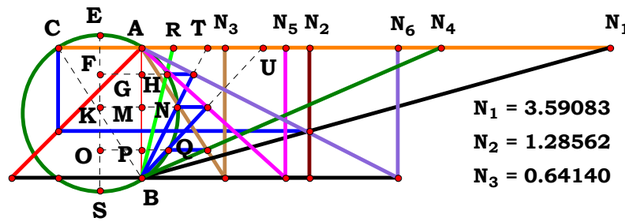
$N_2 := 1.28562$

$N_3 := .64140$

$N_4 := 2.29530$

$N_5 := 1.10418$

$N_6 := 1.96621$



$N_1 = 3.59083$
$N_2 = 1.28562$
$N_3 = 0.64140$
$N_4 = 2.29530$
$N_5 = 1.10418$
$N_6 = 1.96621$
$R = 0.24242$

Descriptions.

$$AC := \frac{N_1 - N_2}{N_1} \qquad BP := \frac{AB \cdot N_3}{N_3 + N_4}$$

$$ES := \sqrt{AB^2 + AC^2} \qquad OS := BP + \frac{ES - AB}{2}$$

$$OQ := \sqrt{OS \cdot (ES - OS)} \qquad PQ := OQ - \frac{AC}{2}$$

$$AU := \frac{PQ \cdot AB}{BP}$$

$$BM := \frac{AB \cdot N_5}{N_5 + AU}$$

$$KS := BM + \frac{ES - AB}{2}$$

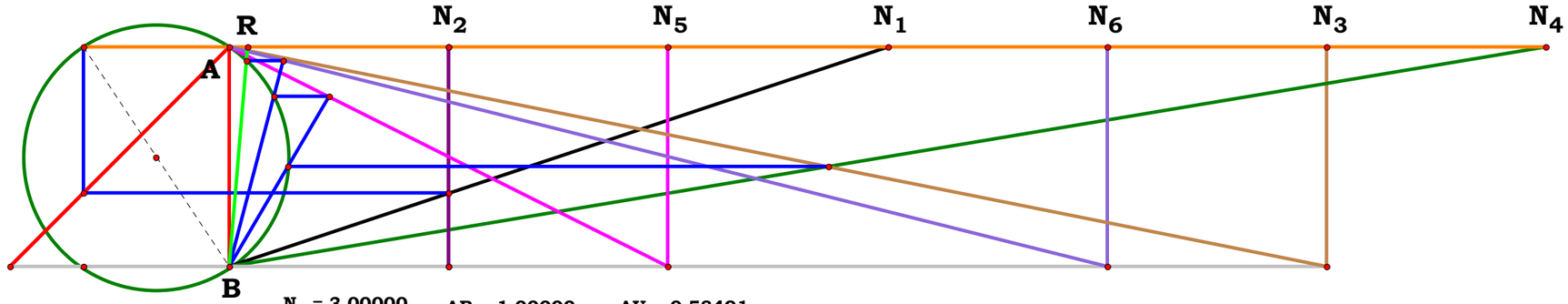
$$KN := \sqrt{KS \cdot (ES - KS)}$$

$$MN := KN - \frac{AC}{2} \qquad AT := \frac{MN \cdot AB}{BM}$$

$$BG := \frac{N_6 \cdot AB}{N_6 + AT} \qquad FS := BG + \frac{ES - AB}{2}$$

$$FH := \sqrt{FS \cdot (ES - FS)} \qquad GH := FH - \frac{AC}{2}$$

$$R := \frac{GH \cdot AB}{BG} \qquad R = 0.242424$$



$N_1 = 3.00000$
$N_2 = 1.00000$
$N_3 = 5.00000$
$N_4 = 6.00000$
$N_5 = 2.00000$
$N_6 = 4.00000$
$R = 0.08223$

$AB = 1.00000$
$AC = 0.66667$
$BP = 0.45455$
$ES = 1.20185$
$OS = 0.55547$
$OQ = 0.59920$
$PQ = 0.26587$

$AU = 0.58491$
$BM = 0.77372$
$KS = 0.87465$
$KN = 0.53497$
$MN = 0.20163$
$AT = 0.26060$
$BG = 0.93883$

$FS = 1.03976$
$FH = 0.41053$
$GH = 0.07720$
$R - \frac{GH \cdot AB}{BG} = 0.00000$

Definitions.

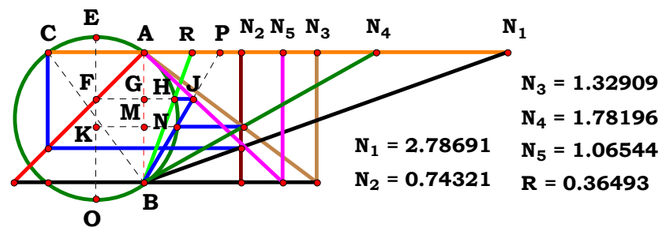
4RST3AB1R6

Unit.

$AB := 1$

Given.

$N_1 := 2.78691$ $N_2 := .74321$ $N_3 := 1.32909$ $N_4 := 1.78196$ $N_5 := 1.06544$



$N_1 = 2.78691$
$N_2 = 0.74321$
$N_3 = 1.32909$
$N_4 = 1.78196$
$N_5 = 1.06544$
$R = 0.36493$

Descriptions.

$AC := \frac{N_1 - N_2}{N_1}$ $BM := \frac{N_3 \cdot AB}{N_3 + N_4}$

$EO := \sqrt{AB^2 + AC^2}$ $KO := BM + \frac{EO - AB}{2}$

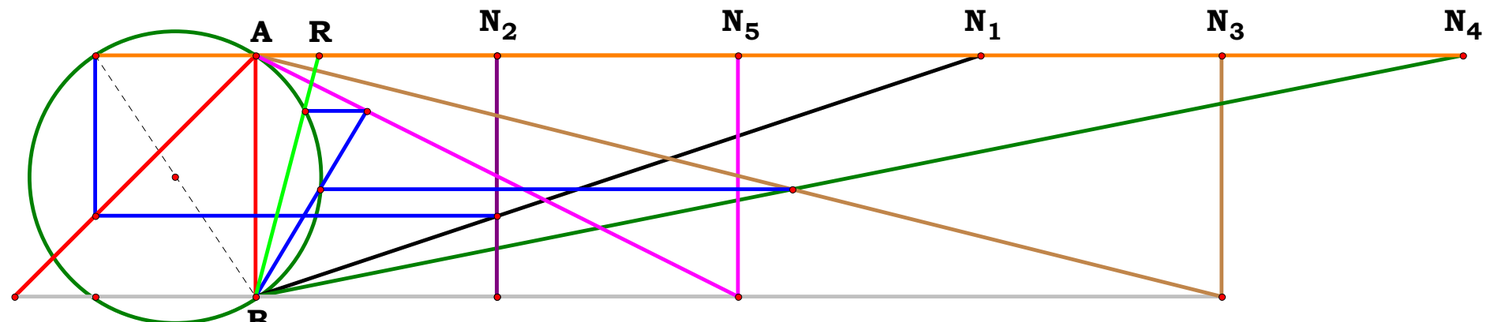
$KN := \sqrt{KO \cdot (EO - KO)}$ $MN := KN - \frac{AC}{2}$

$AP := \frac{MN \cdot AB}{BM}$ $BG := \frac{N_5 \cdot AB}{AP + N_5}$

$FO := BG + \frac{EO - AB}{2}$ $FH := \sqrt{FO \cdot (EO - FO)}$

$GH := FH - \frac{AC}{2}$ $R := \frac{GH \cdot AB}{BG}$

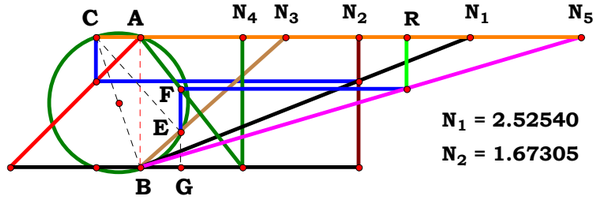
$R = 0.364931$



$N_1 = 3.00000$ $AB = 1.00000$ $MN = 0.26502$
$N_2 = 1.00000$ $AC = 0.66667$ $AP = 0.59629$ $R - \frac{GH \cdot AB}{BG} = 0.00000$
$N_3 = 4.00000$ $BM = 0.44444$ $BG = 0.77033$
$N_4 = 5.00000$ $EO = 1.20185$ $FO = 0.87125$
$N_5 = 2.00000$ $KO = 0.54537$ $FH = 0.53669$
$R = 0.26398$ $KN = 0.59835$ $GH = 0.20335$

Definitions.

4RST3AB1R7



$N_3 = 1.11600$
$N_4 = 0.78432$
$N_5 = 3.38034$
$R = 2.04513$

$N_1 = 2.52540$
$N_2 = 1.67305$

Unit. $AB := 1$ **Given.** $N_1 := 2.52540$ $N_2 := 1.67305$ $N_3 := 1.11600$ $N_4 := .78432$ $N_5 := 3.38034$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$

$V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

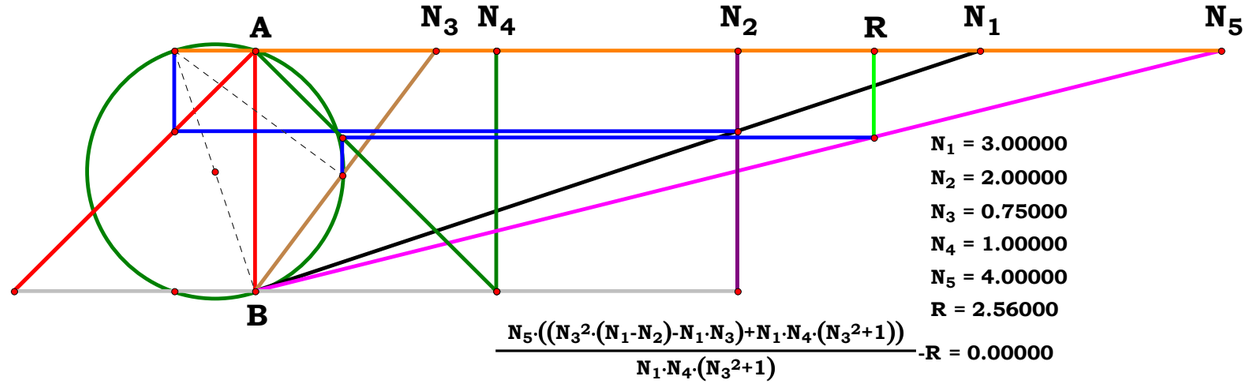
$l := \frac{V}{N_1}$ $m := \frac{W}{N_2}$ $n := \frac{X}{N_3}$ $o := \frac{Y}{N_4}$ $p := \frac{Z}{N_5}$

Descriptions.

$AC := \frac{N_1 - N_2}{N_1}$ $CN_3 := N_3 + AC$ $BN_3 := \sqrt{N_3^2 + AB^2}$

$EN_3 := \frac{N_3 \cdot CN_3}{BN_3}$ $BG := \frac{N_3 \cdot (BN_3 - EN_3)}{BN_3}$

$FG := \frac{AB \cdot (N_4 - BG)}{N_4}$ $R := \frac{N_5 \cdot FG}{AB}$ $R = 2.045128$



$N_1 = 3.00000$
$N_2 = 2.00000$
$N_3 = 0.75000$
$N_4 = 1.00000$
$N_5 = 4.00000$
$R = 2.56000$

$\frac{N_5 \cdot ((N_3^2 \cdot (N_1 - N_2) - N_1 \cdot N_3) + N_1 \cdot N_4 \cdot (N_3^2 + 1))}{N_1 \cdot N_4 \cdot (N_3^2 + 1)} - R = 0.00000$

Definitions.

$$R - \frac{N_5 \cdot \left(N_4 - N_3 + N_3^2 \cdot N_4 + AC \cdot N_3^2\right)}{N_4 \cdot \left(N_3^2 + 1\right)} = 0$$

$$R - \frac{N_5 \cdot \left[N_3^2 \cdot (N_1 - N_2) - N_1 \cdot N_3 + N_1 \cdot N_4 \cdot \left(N_3^2 + 1\right)\right]}{N_1 \cdot N_4 \cdot \left(N_3^2 + 1\right)} = 0$$

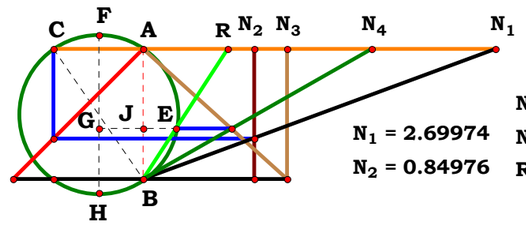
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$

$$R - \frac{B \cdot N_u^3 + N_u^2 \cdot D \cdot (B - A) + N_u \cdot B \cdot C \cdot (C - D)}{B \cdot E \cdot \left(C^2 + N_u^2\right)} = 0$$

$N_1 - \frac{V}{l} = 0$ $N_2 - \frac{W}{m} = 0$ $N_3 - \frac{X}{n} = 0$ $N_4 - \frac{Y}{o} = 0$ $N_5 - \frac{Z}{p} = 0$

$$R - \frac{Z \cdot \left[Y \cdot V \cdot m \cdot \left(X^2 + n^2\right) + X^2 \cdot o \cdot (V \cdot m - W \cdot l) - V \cdot X \cdot m \cdot n \cdot o\right]}{V \cdot Y \cdot m \cdot p \cdot \left(X^2 + n^2\right)} = 0$$

4RST3AB1R8



$N_3 = 1.10631$
$N_4 = 1.75290$
$N_1 = 2.69974$
$N_2 = 0.84976$
$R = 0.65352$

Unit. $AB := 1$ **Given.** $N_1 := 2.69974$ $N_2 := .84979$ $N_3 := 1.10631$ $N_4 := 1.75290$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

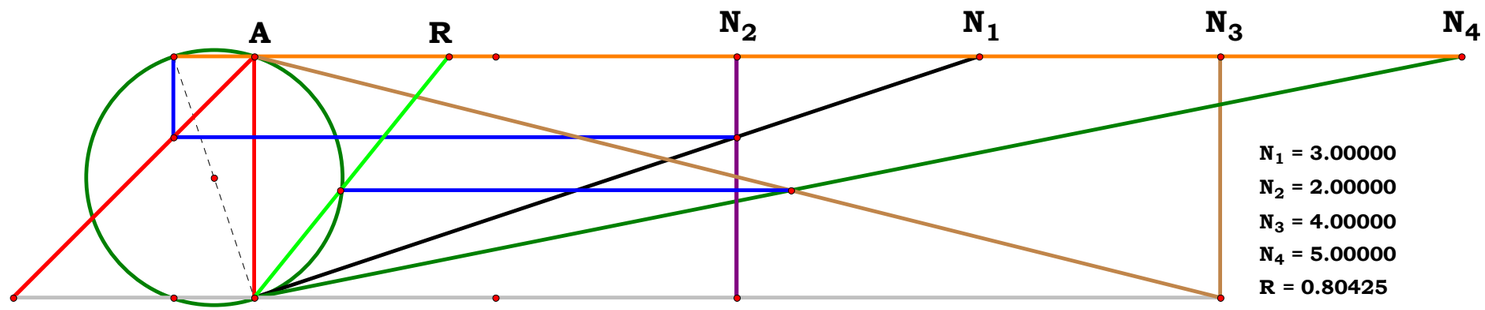
$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

$AC := \frac{N_1 - N_2}{N_1}$ $BJ := \frac{AB \cdot N_3}{N_3 + N_4}$ $FH := \sqrt{AB^2 + AC^2}$

$GH := BJ + \frac{FH - AB}{2}$ $GE := \sqrt{GH \cdot (FH - GH)}$

$JE := GE - \frac{AC}{2}$ $R := \frac{JE \cdot AB}{BJ}$ $R = 0.653525$



$N_1 = 3.00000$
$N_2 = 2.00000$
$N_3 = 4.00000$
$N_4 = 5.00000$
$R = 0.80425$

Definitions.

$$R - \frac{\left[\sqrt{AC^2 \cdot N_3^2 + 2 \cdot AC^2 \cdot N_3 \cdot N_4 + AC^2 \cdot N_4^2 + 4 \cdot N_3 \cdot N_4} - AC \cdot \sqrt{(N_3 + N_4)^2}\right] \cdot (N_3 + N_4)}{2 \cdot N_3 \cdot \sqrt{(N_3 + N_4)^2}} = 0$$

$$R - \frac{\sqrt{(N_3^2 + N_4^2) \cdot (N_1 - N_2)^2 + 2 \cdot N_3 \cdot N_4 \cdot (3 \cdot N_1^2 - 2 \cdot N_1 \cdot N_2 + N_2^2)} - (N_3 + N_4) \cdot (N_1 - N_2)}{2 \cdot N_1 \cdot N_3} = 0$$

$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{(C + D) \cdot (A - B) + \sqrt{(C^2 + D^2) \cdot (A - B)^2 + 2 \cdot C \cdot D \cdot (A^2 - 2 \cdot A \cdot B + 3 \cdot B^2)}}{2 \cdot B \cdot D} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{(Y \cdot p + Z \cdot o) \cdot (X \cdot m - W \cdot n) + \sqrt{(Y^2 \cdot p^2 + Z^2 \cdot o^2) \cdot (W \cdot n - X \cdot m)^2 + 2 \cdot Y \cdot Z \cdot o \cdot p \cdot (3 \cdot W^2 \cdot n^2 - 2 \cdot W \cdot X \cdot m \cdot n + X^2 \cdot m^2)}}{2 \cdot W \cdot Y \cdot n \cdot p} = 0$$

B

$$\frac{\sqrt{(N_3^2+N_4^2)\cdot(N_1-N_2)^2+2\cdot N_3\cdot N_4\cdot((3\cdot N_1^2-2\cdot N_1\cdot N_2)+N_2^2)}-(N_3+N_4)\cdot(N_1-N_2)}{2\cdot N_1\cdot N_3}-R = 0.00000$$

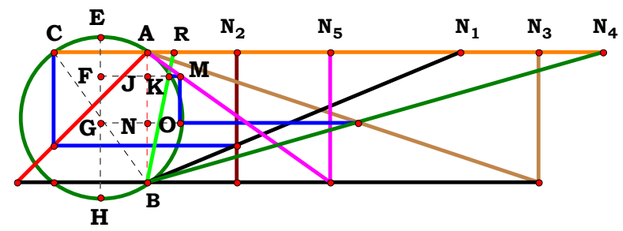
4RST3AB1R9

Unit.

$AB := 1$

Given.

$N_1 := 2.39948$ $N_2 := .68510$ $N_3 := 3.00473$ $N_4 := 3.49634$ $N_5 := 1.40444$



$N_1 = 2.39948$
$N_2 = 0.68510$
$N_3 = 3.00473$
$N_4 = 3.49634$
$N_5 = 1.40444$
$R = 0.20645$

Descriptions.

$$AC := \frac{N_1 - N_2}{N_1} \qquad EH := \sqrt{AB^2 + AC^2}$$

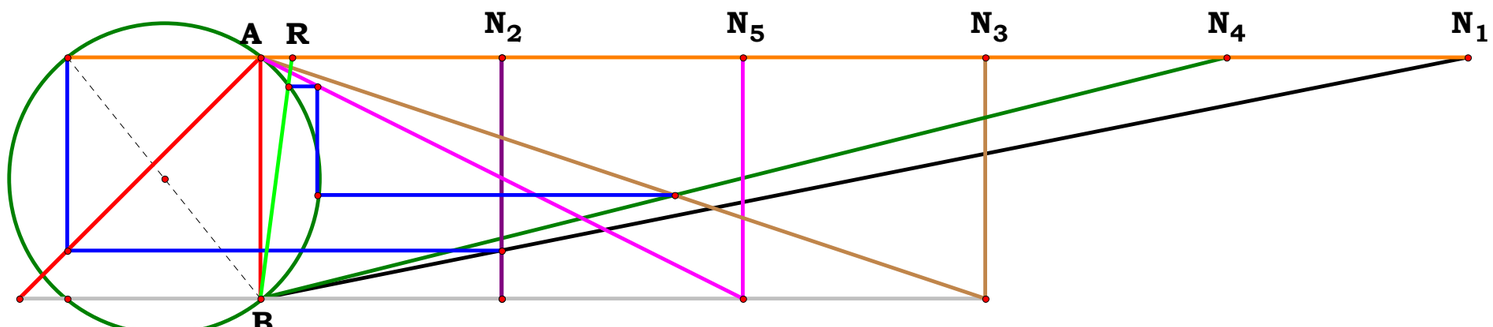
$$BN := \frac{AB \cdot N_3}{N_3 + N_4} \qquad GH := BN + \frac{EH - AB}{2}$$

$$GO := \sqrt{GH \cdot (EH - GH)} \qquad NO := GO - \frac{AC}{2}$$

$$BK := \frac{AB \cdot (N_5 - NO)}{N_5} \qquad FH := BK + \frac{EH - AB}{2}$$

$$FK := \sqrt{FH \cdot (EH - FH)} \qquad JK := FK - \frac{AC}{2}$$

$$R := \frac{JK \cdot AB}{BK} \qquad R = 0.206449$$



$N_1 = 5.00000$ $AB = 1.00000$ $NO = 0.23632$ $JK \cdot AB = 0.11400$

$N_2 = 1.00000$ $AC = 0.80000$ $BK = 0.88184$ $R - \frac{JK \cdot AB}{BK} = 0.00000$

$N_3 = 3.00000$ $EH = 1.28062$ $FH = 1.02215$

$N_4 = 4.00000$ $BN = 0.42857$ $FK = 0.51400$

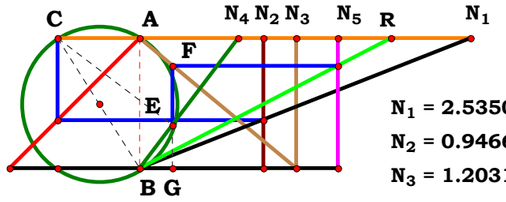
$N_5 = 2.00000$ $GH = 0.56888$ $JK = 0.11400$

$R = 0.12928$ $GO = 0.63632$

Definitions.

$$R - \frac{N_5 \cdot \sqrt{(N_3 + N_4)^2} \cdot \left[\sqrt{(N_3 + N_4) \cdot \left[2 \cdot \sqrt{AC^2 \cdot (N_3 + N_4)^2 + 4 \cdot N_3 \cdot N_4} \cdot \sqrt{(N_3 + N_4)^2} \cdot (AC + N_5) + 4 \cdot N_3^2 \ \ldots \right.} \right.}{\left. + (N_3 + N_4) \cdot \left[(N_3 + N_4) \cdot \left[AC^2 \cdot (N_5^2 - 2) - 2 \cdot AC \cdot N_5 \right] - 4 \cdot N_3 \right] \right] - AC \cdot \sqrt{N_5^2 \cdot (N_3 + N_4)^3} \Bigg]}{\sqrt{N_5^2 \cdot (N_3 + N_4)^3} \cdot \left[AC \cdot \sqrt{(N_3 + N_4)^2} - \sqrt{AC^2 \cdot (N_3 + N_4)^2 + 4 \cdot N_3 \cdot N_4} + 2 \cdot N_5 \cdot \sqrt{(N_3 + N_4)^2} \right]} = 0$$

4RST3AB1R10



$N_1 = 2.53508$ $N_4 = 0.75526$
$N_2 = 0.94661$ $N_5 = 1.52067$
$N_3 = 1.20317$ $R = 1.92625$

Unit. $AB := 1$ Given. $N_1 := 2.53508$ $N_2 := .94661$ $N_3 := 1.20317$

$N_4 := .75526$ $N_5 := 1.52067$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$

$V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $l := \frac{V}{N_1}$ $m := \frac{W}{N_2}$ $n := \frac{X}{N_3}$ $o := \frac{Y}{N_4}$ $p := \frac{Z}{N_5}$

Descriptions.

$AC := \frac{N_1 - N_2}{N_1}$ $CN_4 := N_4 + AC$ $BN_4 := \sqrt{N_4^2 + AB^2}$

$EN_4 := \frac{N_4 \cdot CN_4}{BN_4}$ $BG := N_4 \cdot \frac{(BN_4 - EN_4)}{BN_4}$

$FG := AB \cdot \frac{(N_3 - BG)}{N_3}$ $R := \frac{N_5 \cdot AB}{FG}$ $R = 1.926251$

Definitions.

$$R - \frac{N_3 \cdot N_5 \cdot (N_4^2 + 1)}{N_3 - N_4 + N_3 \cdot N_4^2 + AC \cdot N_4^2} = 0$$

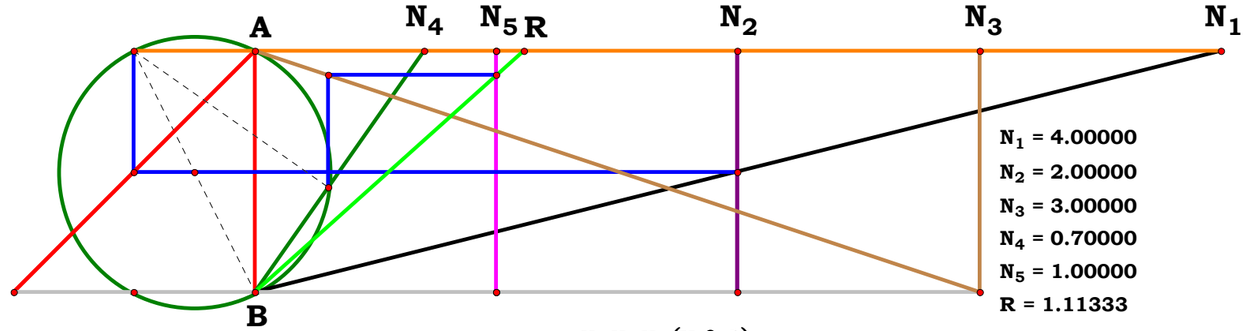
$$R - \frac{N_1 \cdot N_3 \cdot N_5 \cdot (N_4^2 + 1)}{N_4^2 \cdot (N_1 - N_2 + N_1 \cdot N_3) - N_1 \cdot N_4 + N_1 \cdot N_3} = 0$$

$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$

$$R - \frac{B \cdot N_u \cdot (D^2 + N_u^2)}{E \cdot [B \cdot (D^2 - C \cdot D + N_u^2) - C \cdot N_u \cdot (A - B)]} = 0$$

$N_1 - \frac{V}{l} = 0$ $N_2 - \frac{W}{m} = 0$ $N_3 - \frac{X}{n} = 0$ $N_4 - \frac{Y}{o} = 0$ $N_5 - \frac{Z}{p} = 0$

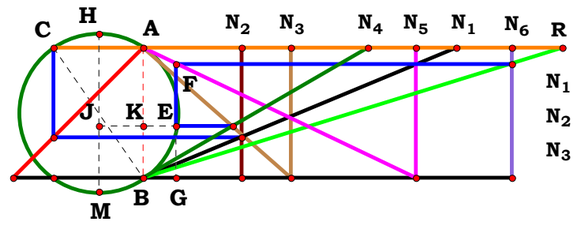
$$R - \frac{V \cdot X \cdot Z \cdot m \cdot (Y^2 + o^2)}{p \cdot [Y^2 \cdot n \cdot (V \cdot m - W \cdot l) + V \cdot X \cdot m \cdot (Y^2 + o^2) - V \cdot Y \cdot m \cdot n \cdot o]} = 0$$



$N_1 = 4.00000$
$N_2 = 2.00000$
$N_3 = 3.00000$
$N_4 = 0.70000$
$N_5 = 1.00000$
$R = 1.11333$

$$\frac{N_1 \cdot N_3 \cdot N_5 \cdot (N_4^2 + 1)}{(N_4^2 \cdot ((N_1 - N_2) + N_1 \cdot N_3) - N_1 \cdot N_4) + N_1 \cdot N_3} - R = 0.00000$$

4RST3AB1R11



$N_1 = 2.39948$ $N_4 = 1.72384$
$N_2 = 0.75290$ $N_5 = 2.09213$
$N_3 = 1.13537$ $N_6 = 2.82825$
$R = 3.21994$

Unit. $AB := 1$ Given. $N_1 := 2.39948$ $N_2 := .75290$ $N_3 := 1.13537$

$N_4 := 1.72384$ $N_5 := 2.09213$ $N_6 := 2.82825$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $F := \frac{N_u}{N_6}$

$U := 18$ $V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$k := \frac{U}{N_1}$ $l := \frac{V}{N_2}$ $m := \frac{W}{N_3}$ $n := \frac{X}{N_4}$ $o := \frac{Y}{N_5}$ $p := \frac{Z}{N_6}$

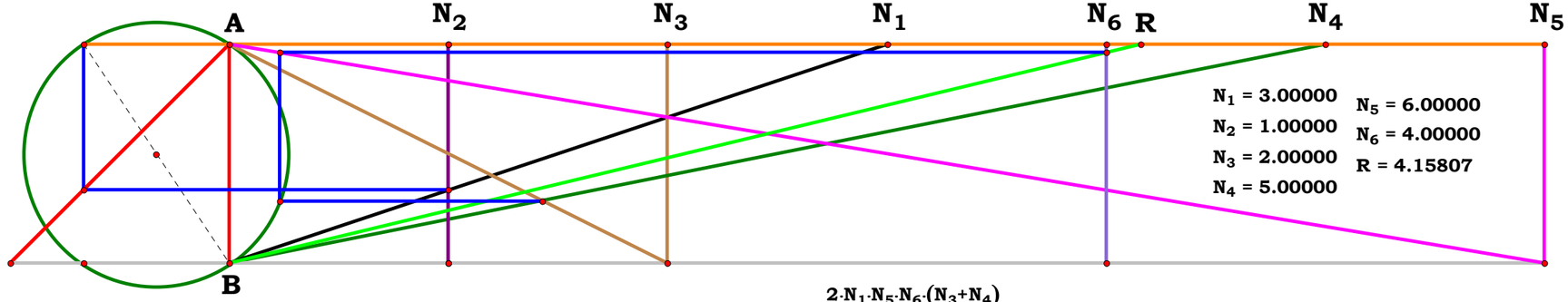
Descriptions.

$AC := \frac{N_1 - N_2}{N_1}$ $EG := \frac{N_3 \cdot AB}{N_3 + N_4}$ $HM := \sqrt{AB^2 + AC^2}$

$JM := EG + \frac{HM - AB}{2}$ $JE := \sqrt{JM \cdot (HM - JM)}$

$BG := JE - \frac{AC}{2}$ $FG := \frac{AB \cdot (N_5 - BG)}{N_5}$

$R := \frac{N_6 \cdot AB}{FG}$ $R = 3.219938$



$N_1 = 3.00000$ $N_5 = 6.00000$
$N_2 = 1.00000$ $N_6 = 4.00000$
$N_3 = 2.00000$ $R = 4.15807$
$N_4 = 5.00000$

Definitions.

$$\frac{2 \cdot N_1 \cdot N_5 \cdot N_6 \cdot (N_3 + N_4)}{((N_3 + N_4) \cdot (N_1 - N_2) + 2 \cdot N_1 \cdot N_5 \cdot (N_3 + N_4)) - \sqrt{(N_3^2 + N_4^2) \cdot (N_1 - N_2)^2 + 2 \cdot N_3 \cdot N_4 \cdot ((3 \cdot N_1^2 - 2 \cdot N_1 \cdot N_2) + N_2^2)}} - R = 0.00000$$

$$R - \frac{2 \cdot N_5 \cdot N_6 \cdot \sqrt{(N_3 + N_4)^2}}{\sqrt{(N_3 + N_4)^2} \cdot (AC + 2 \cdot N_5) - \sqrt{AC^2 \cdot (N_3 + N_4)^2 + 4 \cdot N_3 \cdot N_4}} = 0$$

$$R - \frac{2 \cdot N_1 \cdot N_5 \cdot N_6 \cdot (N_3 + N_4)}{(N_3 + N_4) \cdot (N_1 - N_2) + 2 \cdot N_1 \cdot N_5 \cdot (N_3 + N_4) - \sqrt{(N_3^2 + N_4^2) \cdot (N_1 - N_2)^2 + 2 \cdot N_3 \cdot N_4 \cdot (3 \cdot N_1^2 - 2 \cdot N_1 \cdot N_2 + N_2^2)}} = 0$$

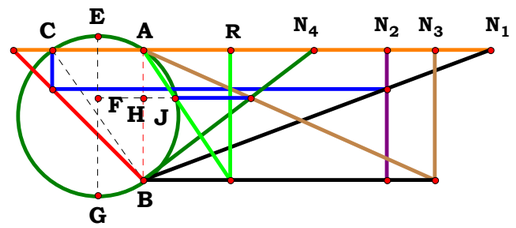
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$ $N_6 - \frac{N_u}{F} = 0$

$$R - \frac{2 \cdot B \cdot N_u^2 \cdot (C + D)}{F \cdot \left[(C + D) \cdot \left[E \cdot (B - A) + 2 \cdot B \cdot N_u\right] - E \cdot \sqrt{(C^2 + D^2) \cdot (A - B)^2 + 2 \cdot C \cdot D \cdot (A^2 - 2 \cdot A \cdot B + 3 \cdot B^2)}\right]} = 0$$

$N_1 - \frac{U}{k} = 0$ $N_2 - \frac{V}{l} = 0$ $N_3 - \frac{W}{m} = 0$ $N_4 - \frac{X}{n} = 0$ $N_5 - \frac{Y}{o} = 0$ $N_6 - \frac{Z}{p} = 0$

$$R - \frac{2 \cdot U \cdot Y \cdot Z \cdot l \cdot (W \cdot n + X \cdot m)}{p \cdot \left[(W \cdot n + X \cdot m) \cdot (2 \cdot U \cdot Y \cdot l + U \cdot l \cdot o - V \cdot k \cdot o) - o \cdot \sqrt{(W^2 \cdot n^2 + X^2 \cdot m^2) \cdot (U \cdot l - V \cdot k)^2 + 2 \cdot W \cdot X \cdot m \cdot n \cdot (3 \cdot U^2 \cdot l^2 - 2 \cdot U \cdot V \cdot k \cdot l + V^2 \cdot k^2)}\right]} = 0$$

4RST3AB2R1



$N_1 = 2.66100$
$N_2 = 1.86676$
$N_3 = 2.23955$
$N_4 = 1.30735$
$R = 0.66659$

Unit. $AB := 1$ **Given.** $N_1 := 2.66100$ $N_2 := 1.86676$ $N_3 := 2.23955$ $N_4 := 1.30735$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

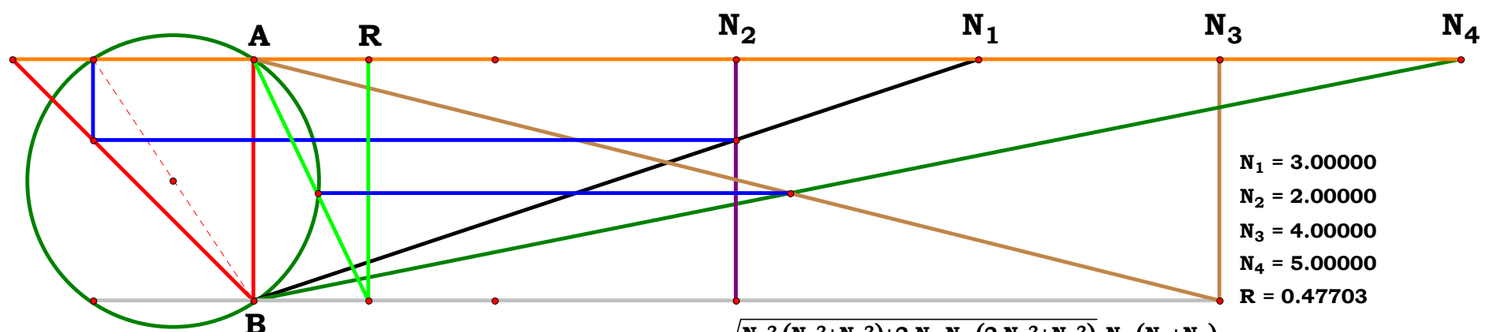
$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

$AC := \frac{N_2}{N_1}$ $AH := \frac{AB \cdot N_4}{N_4 + N_3}$ $EG := \sqrt{AB^2 + AC^2}$

$EF := AH + \frac{(EG - AB)}{2}$ $FJ := \sqrt{EF \cdot (EG - EF)}$

$HJ := FJ - \frac{AC}{2}$ $R := \frac{HJ \cdot AB}{AH}$ $R = 0.666591$



$N_1 = 3.00000$
$N_2 = 2.00000$
$N_3 = 4.00000$
$N_4 = 5.00000$
$R = 0.47703$

$\frac{\sqrt{N_2^2 \cdot (N_3^2 + N_4^2) + 2 \cdot N_3 \cdot N_4 \cdot (2 \cdot N_1^2 + N_2^2)} - N_2 \cdot (N_3 + N_4)}{2 \cdot N_1 \cdot N_4} - R = 0.00000$

Definitions.

$$R - \frac{\left[\sqrt{AC^2 \cdot N_3^2 + 2 \cdot AC^2 \cdot N_3 \cdot N_4 + AC^2 \cdot N_4^2 + 4 \cdot N_3 \cdot N_4} - AC \cdot \sqrt{(N_3 + N_4)^2}\right] \cdot (N_3 + N_4)}{2 \cdot N_4 \cdot \sqrt{(N_3 + N_4)^2}} = 0$$

$$R - \frac{\sqrt{N_2^2 \cdot (N_3^2 + N_4^2) + 2 \cdot N_3 \cdot N_4 \cdot (2 \cdot N_1^2 + N_2^2)} - N_2 \cdot (N_3 + N_4)}{2 \cdot N_1 \cdot N_4} = 0$$

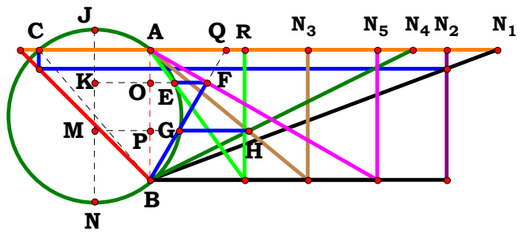
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{\sqrt{A^2 \cdot (C^2 + D^2) + 2 \cdot C \cdot D \cdot (A^2 + 2 \cdot B^2)} - A \cdot (C + D)}{2 \cdot B \cdot C} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{\sqrt{X^2 \cdot m^2 \cdot (Y^2 \cdot p^2 + Z^2 \cdot o^2) + 2 \cdot Y \cdot Z \cdot o \cdot p \cdot (2 \cdot W^2 \cdot n^2 + X^2 \cdot m^2)} - X \cdot m \cdot (Y \cdot p + Z \cdot o)}{2 \cdot W \cdot Z \cdot n \cdot o} = 0$$

4RST3AB2R3



$N_1 = 2.66100$
$N_2 = 2.27357$
$N_3 = 1.21286$
$N_4 = 2.01441$
$N_5 = 1.74751$
R = 0.72462

Given. $AB := 1$ Unit. $N_1 := 2.66100$ $N_2 := 1.50839$ $N_3 := 1.212839$
$N_4 := 2.01441$ $N_5 := 1.74751$

Descriptions.

$$AC := \frac{N_2}{N_1} \qquad BP := \frac{AB \cdot N_3}{N_3 + N_4}$$

$$JN := \sqrt{AB^2 + AC^2} \qquad JM := JN - \left(BP + \frac{JN - AB}{2}\right)$$

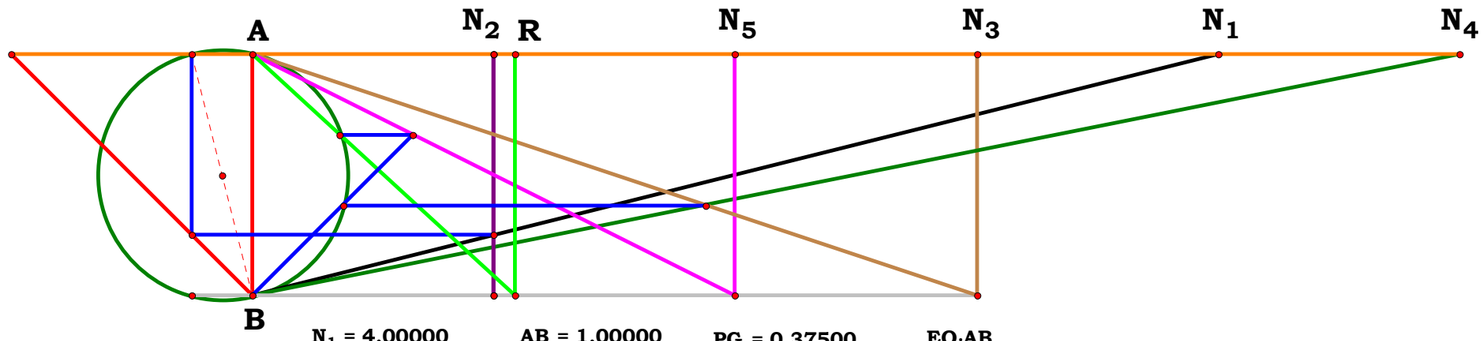
$$GM := \sqrt{JM \cdot (JN - JM)} \qquad PG := GM - \frac{AC}{2}$$

$$AQ := \frac{PG \cdot AB}{BP} \qquad AO := \frac{AB \cdot AQ}{AQ + N_5}$$

$$JK := AO + \frac{JN - AB}{2} \qquad EK := \sqrt{JK \cdot (JN - JK)}$$

$$EO := EK - \frac{AC}{2} \qquad R := \frac{EO \cdot AB}{AO}$$

$R = 0.855795$



$N_1 = 4.00000$
$N_2 = 1.00000$
$N_3 = 3.00000$
$N_4 = 5.00000$
$N_5 = 2.00000$
R = 1.08809

AB = 1.00000
AC = 0.25000
BP = 0.37500
JN = 1.03078
JM = 0.64039
GM = 0.50000

PG = 0.37500
AQ = 1.00000
AO = 0.33333
JK = 0.34872
EK = 0.48770
EO = 0.36270

$R - \frac{EO \cdot AB}{AO} = 0.00000$

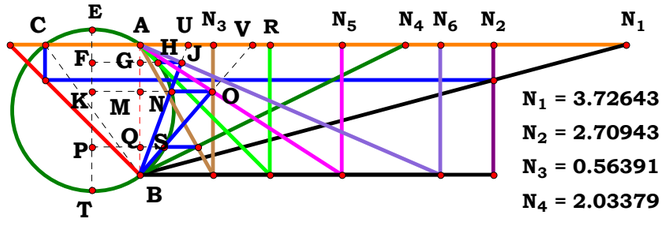
Definitions.

$$AC - \frac{N_2}{N_1} = 0 \qquad BP - \frac{N_3}{N_3 + N_4} = 0 \qquad JN - \frac{\sqrt{N_1^2 + N_2^2}}{N_1} = 0 \qquad JM - \frac{N_1 \cdot (N_4 - N_3) + \sqrt{N_1^2 + N_2^2} \cdot (N_3 + N_4)}{2 \cdot N_1 \cdot (N_3 + N_4)} = 0 \qquad GM - \frac{\sqrt{N_2^2 \cdot (N_3^2 + N_4^2) + 2 \cdot N_4 \cdot N_3 \cdot (2 \cdot N_1^2 + N_2^2)}}{2 \cdot N_1 \cdot (N_3 + N_4)} = 0$$

$$PG - \frac{\sqrt{N_2^2 \cdot (N_3^2 + N_4^2) + 2 \cdot N_4 \cdot N_3 \cdot (2 \cdot N_1^2 + N_2^2)} - N_2 \cdot (N_3 + N_4)}{2 \cdot N_1 \cdot (N_3 + N_4)} = 0 \qquad AQ - \frac{\sqrt{N_2^2 \cdot (N_3^2 + N_4^2) + 2 \cdot N_4 \cdot N_3 \cdot (2 \cdot N_1^2 + N_2^2)} - N_2 \cdot (N_3 + N_4)}{2 \cdot N_1 \cdot N_3} = 0$$

$$AO - \frac{\sqrt{N_2^2 \cdot (N_3^2 + N_4^2) + 2 \cdot N_3 \cdot N_4 \cdot (2 \cdot N_1^2 + N_2^2)} - N_2 \cdot (N_3 + N_4)}{\sqrt{N_2^2 \cdot (N_3^2 + N_4^2) + 2 \cdot N_3 \cdot N_4 \cdot (2 \cdot N_1^2 + N_2^2)} - N_2 \cdot N_3 - N_2 \cdot N_4 + 2 \cdot N_1 \cdot N_3 \cdot N_5} = 0 \qquad \text{Etc.}$$

4RST3AB2R4



$N_1 = 3.72643$
$N_2 = 2.70943$
$N_3 = 0.56391$
$N_4 = 2.03379$
$N_5 = 1.55380$
$N_6 = 2.30522$
$R = 0.99720$

Unit. $AB := 1$ **Given.** $N_1 := 3.72643$ $N_2 := 2.70943$ $N_3 := .56391$ $N_4 := 2.03379$ $N_5 := 1.55380$ $N_6 := 2.30522$

Descriptions.

$$AC := \frac{N_2}{N_1} \qquad BQ := \frac{AB \cdot N_3}{N_3 + N_4}$$

$$ET := \sqrt{AB^2 + AC^2} \qquad EP := ET - \left(BQ + \frac{ET - AB}{2}\right)$$

$$PS := \sqrt{EP \cdot (ET - EP)} \qquad QS := PS - \frac{AC}{2}$$

$$AV := \frac{QS \cdot AB}{BQ} \qquad BM := \frac{AB \cdot N_5}{AV + N_5}$$

$$KT := BM + \frac{ET - AB}{2} \qquad KN := \sqrt{KT \cdot (ET - KT)}$$

$$MN := KN - \frac{AC}{2} \qquad AU := \frac{MN \cdot AB}{BM}$$

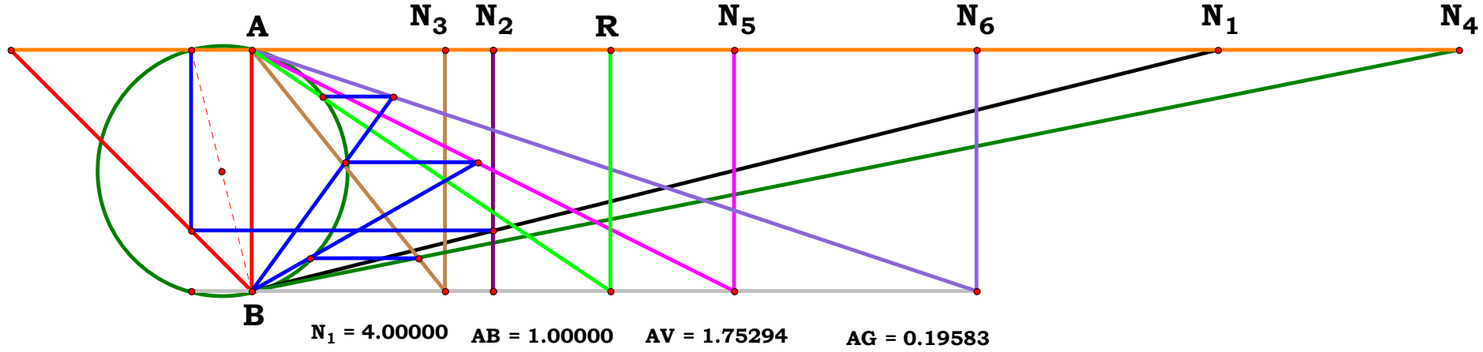
$$BG := \frac{AB \cdot N_6}{AU + N_6} \qquad AG := AB - BG$$

$$EF := AG + \frac{ET - AB}{2} \qquad FH := \sqrt{EF \cdot (ET - EF)}$$

$$GH := FH - \frac{AC}{2} \qquad R := \frac{GH \cdot AB}{AG}$$

$R = 0.997203$

Definitions.



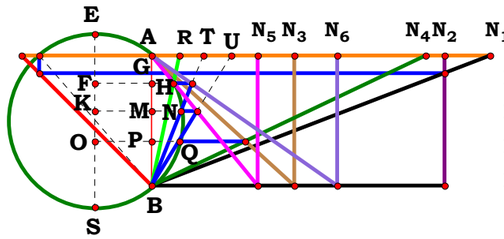
$N_1 = 4.00000$
$N_2 = 1.00000$
$N_3 = 0.80000$
$N_4 = 5.00000$
$N_5 = 2.00000$
$N_6 = 3.00000$
$R = 1.48627$

$AB = 1.00000$
$AC = 0.25000$
$BQ = 0.13793$
$ET = 1.03078$
$EP = 0.87746$
$PS = 0.36678$
$QS = 0.24178$

$AV = 1.75294$
$BM = 0.53292$
$KT = 0.54830$
$KN = 0.51434$
$MN = 0.38934$
$AU = 0.73058$
$BG = 0.80417$

$AG = 0.19583$
$EF = 0.21122$
$FH = 0.41606$
$GH = 0.29106$
$R - \frac{GH \cdot AB}{AG} = 0.00000$

4RST3AB2R5



$N_1 = 2.59320$ $N_5 = 0.81768$
$N_2 = 2.24451$ $N_6 = 1.42381$
$N_3 = 1.09663$ $R = 0.20977$
$N_4 = 2.10159$

Unit. $AB := 1$ **Given.** $N_1 := 2.59320$ $N_2 := 2.24451$ $N_3 := 1.09663$ $N_4 := 2.10159$ $N_5 := .81768$ $N_6 := 1.42381$

Descriptions.

$$AC := \frac{N_2}{N_1} \qquad BP := \frac{AB \cdot N_3}{N_3 + N_4}$$

$$ES := \sqrt{AB^2 + AC^2} \qquad OS := BP + \frac{ES - AB}{2}$$

$$OQ := \sqrt{OS \cdot (ES - OS)} \qquad PQ := OQ - \frac{AC}{2}$$

$$AU := \frac{PQ \cdot AB}{BP} \qquad BM := \frac{AB \cdot N_5}{N_5 + AU}$$

$$KS := BM + \frac{ES - AB}{2} \qquad KN := \sqrt{KS \cdot (ES - KS)}$$

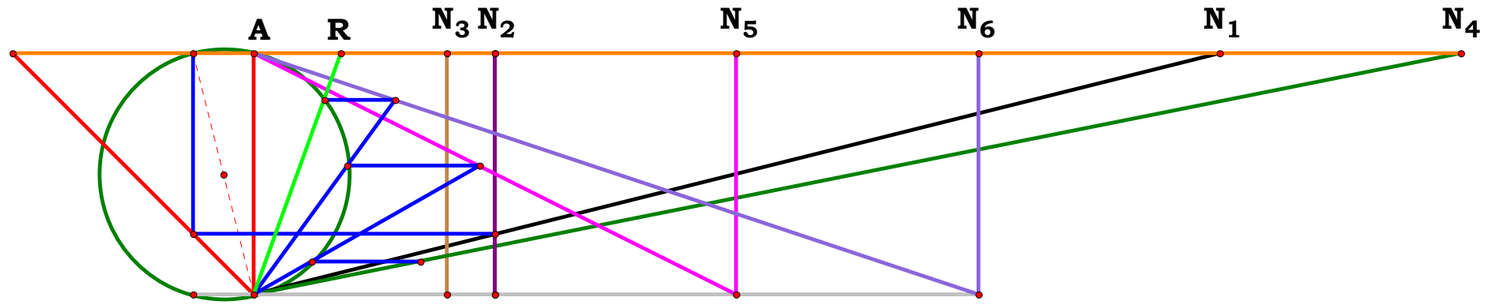
$$MN := KN - \frac{AC}{2} \qquad AT := \frac{MN \cdot AB}{BM}$$

$$BG := \frac{N_6 \cdot AB}{N_6 + AT} \qquad FS := BG + \frac{ES - AB}{2}$$

$$FH := \sqrt{FS \cdot (ES - FS)} \qquad GH := FH - \frac{AC}{2}$$

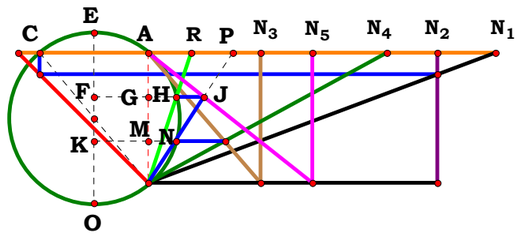
$$R := \frac{GH \cdot AB}{BG} \qquad R = 0.209765$$

Definitions.



$N_1 = 4.00000$ $AB = 1.00000$ $AU = 1.75294$ $FS = 0.81955$
$N_2 = 1.00000$ $AC = 0.25000$ $BM = 0.53292$ $FH = 0.41606$
$N_3 = 0.80000$ $BP = 0.13793$ $KS = 0.54830$ $GH = 0.29106$
$N_4 = 5.00000$ $ES = 1.03078$ $KN = 0.51434$ $R - \frac{GH \cdot AB}{BG} = 0.00000$
$N_5 = 2.00000$ $OS = 0.15332$ $MN = 0.38934$
$N_6 = 3.00000$ $OQ = 0.36678$ $AT = 0.73058$
$R = 0.36194$ $PQ = 0.24178$ $BG = 0.80417$

4RST3AB2R6



N_1 = 2.66100
N_2 = 2.21545
N_3 = 0.86417
N_4 = 1.83038
N_5 = 1.26322
R = 0.32517

Unit. $AB := 1$ **Given.** $N_1 := 2.66100$ $N_2 := 2.21545$ $N_3 := .86417$ $N_4 := 1.83038$ $N_5 := 1.26322$

Descriptions.

$$AC := \frac{N_2}{N_1} \qquad BM := \frac{N_3 \cdot AB}{N_3 + N_4}$$

$$EO := \sqrt{AB^2 + AC^2} \qquad KO := BM + \frac{EO - AB}{2}$$

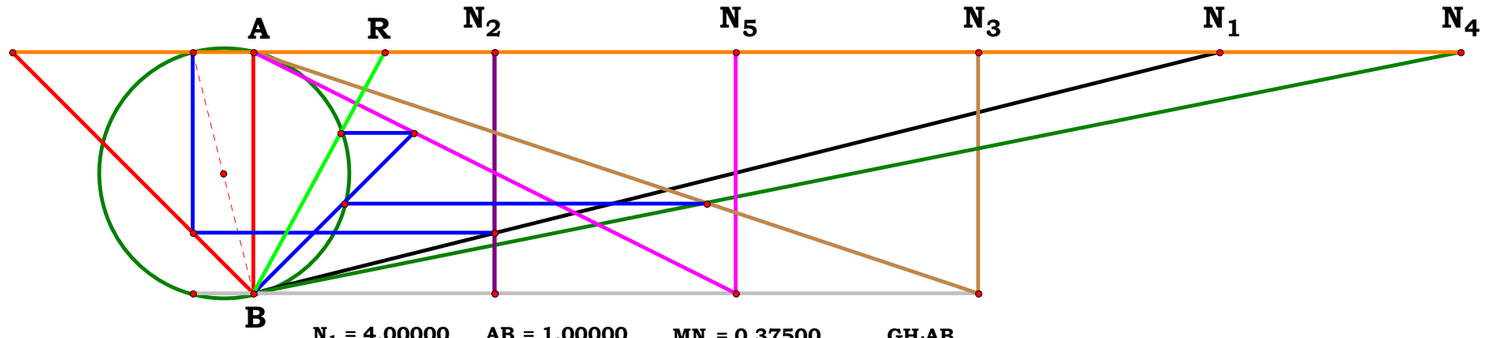
$$KN := \sqrt{KO \cdot (EO - KO)} \qquad MN := KN - \frac{AC}{2}$$

$$AP := \frac{MN \cdot AB}{BM} \qquad BG := \frac{N_5 \cdot AB}{AP + N_5}$$

$$FO := BG + \frac{EO - AB}{2} \qquad FH := \sqrt{FO \cdot (EO - FO)}$$

$$GH := FH - \frac{AC}{2} \qquad R := \frac{GH \cdot AB}{BG}$$

$R = 0.325173$



N_1 = 4.00000
N_2 = 1.00000
N_3 = 3.00000
N_4 = 5.00000
N_5 = 2.00000
R = 0.54404

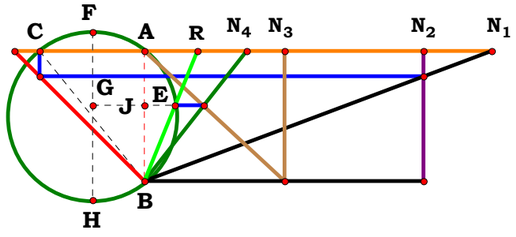
AB = 1.00000
AC = 0.25000
BM = 0.37500
EO = 1.03078
KO = 0.39039
KN = 0.50000

MN = 0.37500
AP = 1.00000
BG = 0.66667
FO = 0.68205
FH = 0.48770
GH = 0.36270

$R - \frac{GH \cdot AB}{BG} = 0.00000$

Definitions.

4RST3AB2R8



$N_1 = 2.66100$
$N_2 = 2.13797$
$N_3 = 1.07726$
$N_4 = 0.78432$
$R = 0.40579$

Unit. $AB := 1$ Given. $N_1 := 2.66100$ $N_2 := 2.13797$ $N_3 := 1.07726$ $N_4 := .78432$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

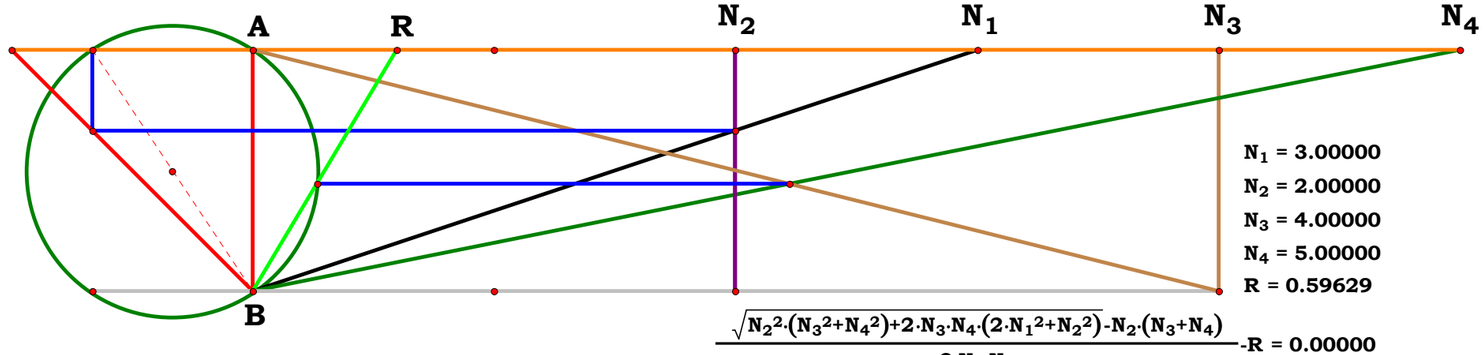
Descriptions.

$AC := \frac{N_2}{N_1}$ $BJ := \frac{AB \cdot N_3}{N_3 + N_4}$

$FH := \sqrt{AB^2 + AC^2}$ $GH := BJ + \frac{FH - AB}{2}$

$GE := \sqrt{GH \cdot (FH - GH)}$ $JE := GE - \frac{AC}{2}$

$R := \frac{JE \cdot AB}{BJ}$ $R = 0.40579$



$N_1 = 3.00000$
$N_2 = 2.00000$
$N_3 = 4.00000$
$N_4 = 5.00000$
$R = 0.59629$

$\frac{\sqrt{N_2^2 \cdot (N_3^2 + N_4^2) + 2 \cdot N_3 \cdot N_4 \cdot (2 \cdot N_1^2 + N_2^2)} - N_2 \cdot (N_3 + N_4)}{2 \cdot N_1 \cdot N_3} - R = 0.00000$

Definitions.

$$R - \frac{\left[\sqrt{AC^2 \cdot N_3^2 + 2 \cdot AC^2 \cdot N_3 \cdot N_4 + AC^2 \cdot N_4^2 + 4 \cdot N_3 \cdot N_4} - AC \cdot \sqrt{(N_3 + N_4)^2}\right] \cdot (N_3 + N_4)}{2 \cdot N_3 \cdot \sqrt{(N_3 + N_4)^2}} = 0$$

$$R - \frac{\sqrt{N_2^2 \cdot (N_3^2 + N_4^2) + 2 \cdot N_3 \cdot N_4 \cdot (2 \cdot N_1^2 + N_2^2)} - N_2 \cdot (N_3 + N_4)}{2 \cdot N_1 \cdot N_3} = 0$$

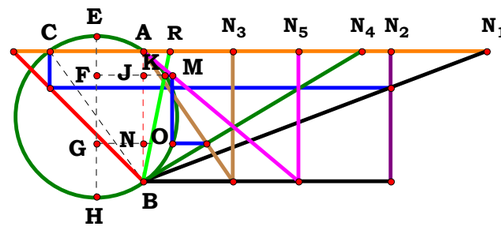
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{\sqrt{A^2 \cdot (C^2 + D^2) + 2 \cdot C \cdot D \cdot (A^2 + 2 \cdot B^2)} - A \cdot (C + D)}{2 \cdot B \cdot D} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{\sqrt{X^2 \cdot m^2 \cdot (Y^2 \cdot p^2 + Z^2 \cdot o^2) + 2 \cdot Y \cdot Z \cdot o \cdot p \cdot (2 \cdot W^2 \cdot n^2 + X^2 \cdot m^2)} - X \cdot m \cdot (Y \cdot p + Z \cdot o)}{2 \cdot W \cdot Y \cdot n \cdot p} = 0$$

4RST3AB2R9



$N_1 = 2.63194$
$N_2 = 1.89582$
$N_3 = 0.68983$
$N_4 = 1.67541$
$N_5 = 1.19542$
$R = 0.20677$

Unit. $AB := 1$ Given. $N_1 := 2.63194$ $N_2 := 1.89582$ $N_3 := .68983$ $N_4 := 1.67541$ $N_5 := 1.19542$

Descriptions.

$$AC := \frac{N_2}{N_1} \qquad EH := \sqrt{AB^2 + AC^2}$$

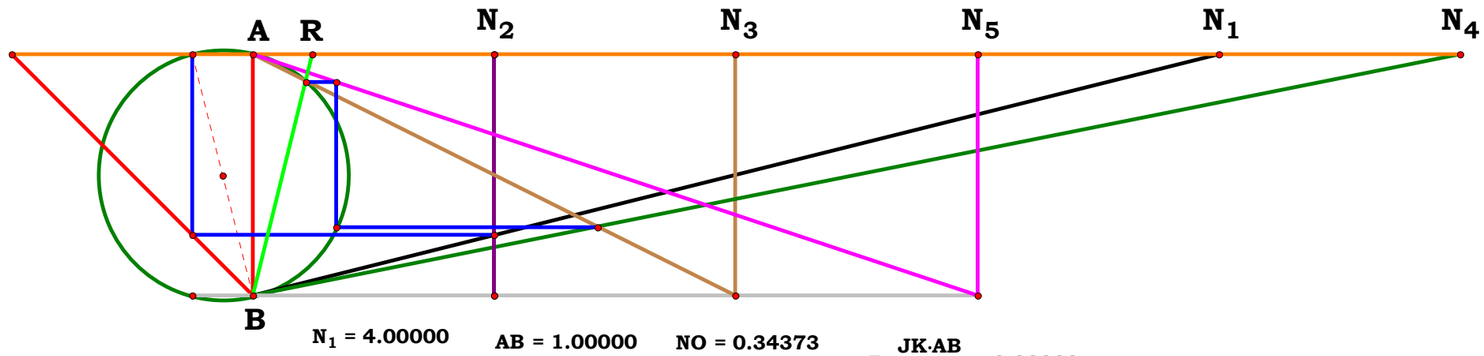
$$BN := \frac{AB \cdot N_3}{N_3 + N_4} \qquad GH := BN + \frac{EH - AB}{2}$$

$$GO := \sqrt{GH \cdot (EH - GH)} \qquad NO := GO - \frac{AC}{2}$$

$$BK := \frac{AB \cdot (N_5 - NO)}{N_5} \qquad FH := BK + \frac{EH - AB}{2}$$

$$FK := \sqrt{FH \cdot (EH - FH)} \qquad JK := FK - \frac{AC}{2}$$

$$R := \frac{JK \cdot AB}{BK} \qquad R = 0.206773$$



$N_1 = 4.00000$ $AB = 1.00000$ $NO = 0.34373$ $R - \frac{JK \cdot AB}{BK} = 0.00000$
$N_2 = 1.00000$ $AC = 0.25000$ $BK = 0.88542$
$N_3 = 2.00000$ $EH = 1.03078$ $FH = 0.90081$
$N_4 = 5.00000$ $BN = 0.28571$ $FK = 0.34216$
$N_5 = 3.00000$ $GH = 0.30110$ $JK = 0.21716$
$R = 0.24526$ $GO = 0.46873$

Definitions.

$$AC - \frac{N_2}{N_1} = 0 \qquad EH - \frac{\sqrt{N_1^2 + N_2^2}}{N_1} = 0 \qquad BN - \frac{N_3}{N_3 + N_4} = 0$$

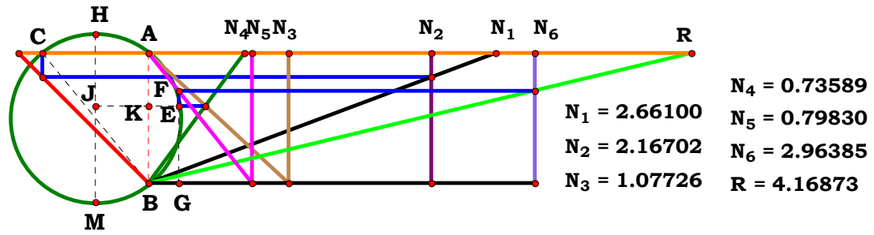
$$GH - \left[\frac{(N_3 + N_4) \cdot \sqrt{N_1^2 + N_2^2} + N_1 \cdot (N_3 - N_4)}{2 \cdot N_1 \cdot (N_3 + N_4)} \right] = 0 \qquad GO - \frac{\sqrt{N_2^2 \cdot (N_3^2 + N_4^2) + 2 \cdot N_4 \cdot N_3 \cdot (2 \cdot N_1^2 + N_2^2)}}{2 \cdot N_1 \cdot (N_3 + N_4)} = 0$$

$$NO - \frac{\sqrt{N_2^2 \cdot (N_3^2 + N_4^2) + 2 \cdot N_4 \cdot N_3 \cdot (2 \cdot N_1^2 + N_2^2)} - N_2 \cdot (N_3 + N_4)}{2 \cdot N_1 \cdot (N_3 + N_4)} = 0$$

$$BK - \frac{(N_3 + N_4) \cdot (N_2 + 2 \cdot N_1 \cdot N_5) - \sqrt{N_2^2 \cdot (N_3^2 + N_4^2) + 2 \cdot N_3 \cdot N_4 \cdot (2 \cdot N_1^2 + N_2^2)}}{2 \cdot N_5 \cdot N_1 \cdot (N_3 + N_4)} = 0$$

$$FH - \frac{(N_3 \cdot N_5 + N_4 \cdot N_5) \cdot \sqrt{N_1^2 + N_2^2} + (N_3 + N_4) \cdot (N_2 + N_1 \cdot N_5) - \sqrt{N_2^2 \cdot (N_3^2 + N_4^2) + 2 \cdot N_3 \cdot N_4 \cdot (2 \cdot N_1^2 + N_2^2)}}{2 \cdot N_1 \cdot N_5 \cdot (N_3 + N_4)} = 0 \qquad \text{Etc.}$$

4RST3AB2R11



$N_4 = 0.73589$
$N_5 = 0.79830$
$N_6 = 2.96385$
$R = 4.16873$

$N_1 = 2.66100$
$N_2 = 2.16702$
$N_3 = 1.07726$

Unit. $AB := 1$ **Given.** $N_1 := 2.66100$ $N_2 := 2.16702$ $N_3 := 1.07726$

$N_4 := .73589$ $N_5 := .79830$ $N_6 := 2.96385$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $F := \frac{N_u}{N_6}$

$U := 18$ $V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$k := \frac{U}{N_1}$ $l := \frac{V}{N_2}$ $m := \frac{W}{N_3}$ $n := \frac{X}{N_4}$ $o := \frac{Y}{N_5}$ $p := \frac{Z}{N_6}$

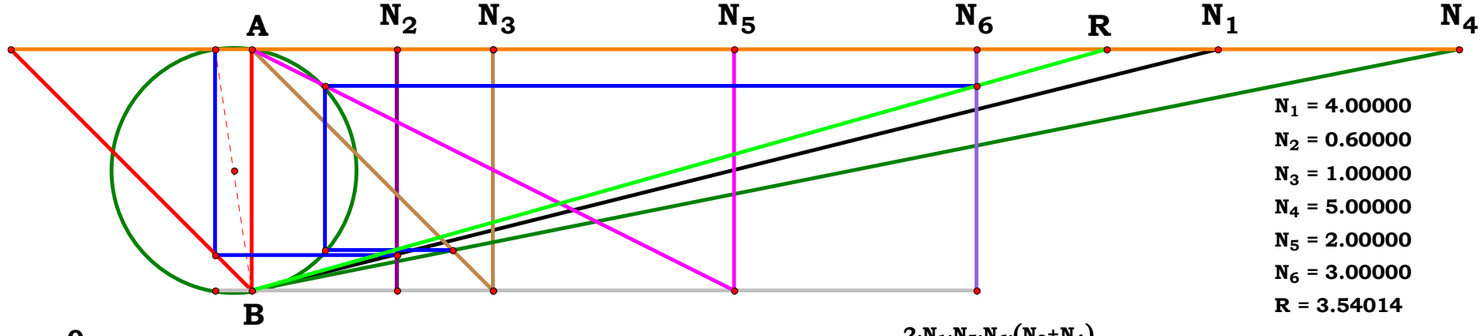
Descriptions.

$AC := \frac{N_2}{N_1}$ $EG := \frac{N_3 \cdot AB}{N_3 + N_4}$

$HM := \sqrt{AB^2 + AC^2}$ $JM := EG + \frac{HM - AB}{2}$

$JE := \sqrt{JM \cdot (HM - JM)}$ $BG := JE - \frac{AC}{2}$

$FG := \frac{AB \cdot (N_5 - BG)}{N_5}$ $R := \frac{N_6 \cdot AB}{FG}$ $R = 4.168744$



$N_1 = 4.00000$
$N_2 = 0.60000$
$N_3 = 1.00000$
$N_4 = 5.00000$
$N_5 = 2.00000$
$N_6 = 3.00000$
$R = 3.54014$

$\frac{2 \cdot N_1 \cdot N_5 \cdot N_6 \cdot (N_3 + N_4)}{(N_3+N_4) \cdot (N_2+2 \cdot N_1 \cdot N_5) - \sqrt{N_2^2 \cdot (N_3+N_4)^2 + 4 \cdot N_1^2 \cdot N_3 \cdot N_4}} - R = 0.00000$

Definitions.

$$R - \frac{2 \cdot N_5 \cdot N_6 \cdot \sqrt{(N_3 + N_4)^2}}{\sqrt{(N_3 + N_4)^2} \cdot (AC + 2 \cdot N_5) - \sqrt{AC^2 \cdot (N_3 + N_4)^2 + 4 \cdot N_3 \cdot N_4}} = 0$$

$$R - \frac{2 \cdot N_1 \cdot N_5 \cdot N_6 \cdot (N_3 + N_4)}{(N_3 + N_4) \cdot (N_2 + 2 \cdot N_1 \cdot N_5) - \sqrt{N_2^2 \cdot (N_3 + N_4)^2 + 4 \cdot N_1^2 \cdot N_3 \cdot N_4}} = 0$$

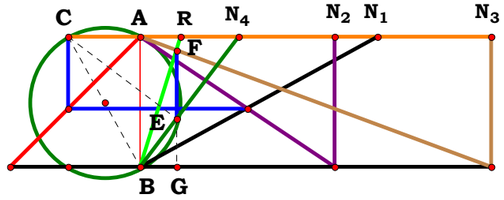
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$ $N_6 - \frac{N_u}{F} = 0$

$$R - \frac{2 \cdot B \cdot N_u^2 \cdot (C + D)}{F \cdot \left[(C + D) \cdot (A \cdot E + 2 \cdot B \cdot N_u) - E \cdot \sqrt{A^2 \cdot (C^2 + D^2) + 2 \cdot C \cdot D \cdot (A^2 + 2 \cdot B^2)} \right]} = 0$$

$N_1 - \frac{U}{k} = 0$ $N_2 - \frac{V}{l} = 0$ $N_3 - \frac{W}{m} = 0$ $N_4 - \frac{X}{n} = 0$ $N_5 - \frac{Y}{o} = 0$ $N_6 - \frac{Z}{p} = 0$

$$R - \frac{2 \cdot U \cdot Y \cdot Z \cdot l \cdot (W \cdot n + X \cdot m)}{p \cdot \left[(W \cdot n + X \cdot m) \cdot (2 \cdot U \cdot Y \cdot l + V \cdot k \cdot o) - o \cdot \sqrt{4 \cdot U^2 \cdot W \cdot X \cdot l^2 \cdot m \cdot n + V^2 \cdot W^2 \cdot k^2 \cdot n^2 + 2 \cdot V^2 \cdot W \cdot X \cdot k^2 \cdot m \cdot n + V^2 \cdot X^2 \cdot k^2 \cdot m^2} \right]} = 0$$

4RST3AB3R0



$N_1 = 1.81833$
$N_2 = 1.48902$
$N_3 = 2.69478$
$N_4 = 0.75526$
$R = 0.31400$

Unit. $AB := 1$ Given. $N_1 := 1.81833$ $N_2 := 1.48902$ $N_3 := 2.69478$ $N_4 := .75526$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

$$AC := \frac{N_1}{N_1 + N_2} \qquad CN_4 := N_4 + AC \qquad BN_4 := \sqrt{N_4^2 + AB^2}$$

$$EN_4 := \frac{N_4 \cdot CN_4}{BN_4} \qquad BE := BN_4 - EN_4 \qquad BG := \frac{N_4 \cdot BE}{BN_4}$$

$$FG := \frac{AB \cdot (N_3 - BG)}{N_3} \qquad R := \frac{BG \cdot AB}{FG} \qquad R = 0.314003$$

Definitions.

$$R - \frac{N_3 \cdot N_4 \cdot (AC \cdot N_4 - 1)}{N_4 - N_3 - N_3 \cdot N_4^2 - AC \cdot N_4^2} = 0$$

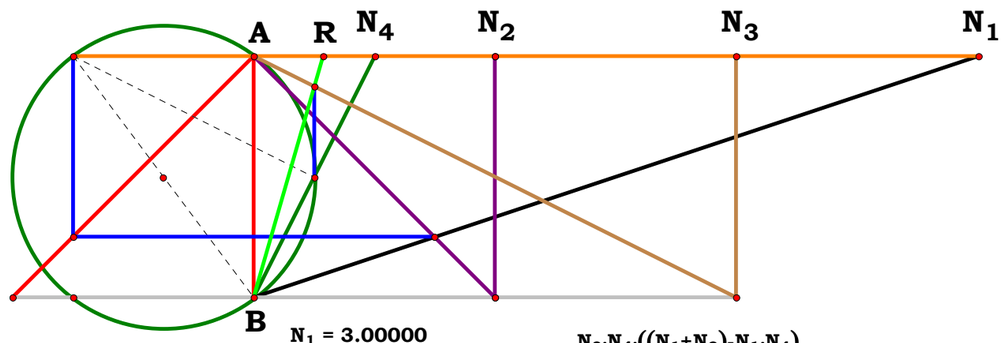
$$R - \frac{N_3 \cdot N_4 \cdot (N_1 + N_2 - N_1 \cdot N_4)}{N_4^2 \cdot (N_1 + N_1 \cdot N_3 + N_2 \cdot N_3) + (N_3 - N_4) \cdot (N_1 + N_2)} = 0$$

$$N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0 \quad N_4 - \frac{N_u}{D} = 0$$

$$R - \frac{N_u \cdot [D \cdot (A + B) - B \cdot N_u]}{D^2 \cdot (A + B) + N_u^2 \cdot (A + B) - C \cdot D \cdot (A + B) + B \cdot C \cdot N_u} = 0$$

$$N_1 - \frac{W}{m} = 0 \quad N_2 - \frac{X}{n} = 0 \quad N_3 - \frac{Y}{o} = 0 \quad N_4 - \frac{Z}{p} = 0$$

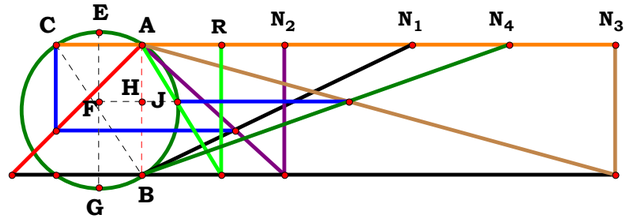
$$R - \frac{Y \cdot Z \cdot (W \cdot n \cdot p - W \cdot Z \cdot n + X \cdot m \cdot p)}{Y \cdot (Z^2 + p^2) \cdot (W \cdot n + X \cdot m) + Z \cdot o \cdot (W \cdot Z \cdot n - W \cdot n \cdot p - X \cdot m \cdot p)} = 0$$



$N_1 = 3.00000$
$N_2 = 1.00000$
$N_3 = 2.00000$
$N_4 = 0.50000$
$R = 0.28571$

$$\frac{N_3 \cdot N_4 \cdot ((N_1 + N_2) - N_1 \cdot N_4)}{N_4^2 \cdot (N_1 + N_1 \cdot N_3 + N_2 \cdot N_3) + (N_3 - N_4) \cdot (N_1 + N_2)} - R = 0.00000$$

4RST3AB3R1



$N_1 = 2.07016$
$N_2 = 1.09190$
$N_3 = 3.63430$
$N_4 = 2.81833$
$R = 0.61113$

Unit. $AB := 1$ Given. $N_1 := 2.07016$ $N_2 := 1.09190$ $N_3 := 3.63430$ $N_4 := 2.81833$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

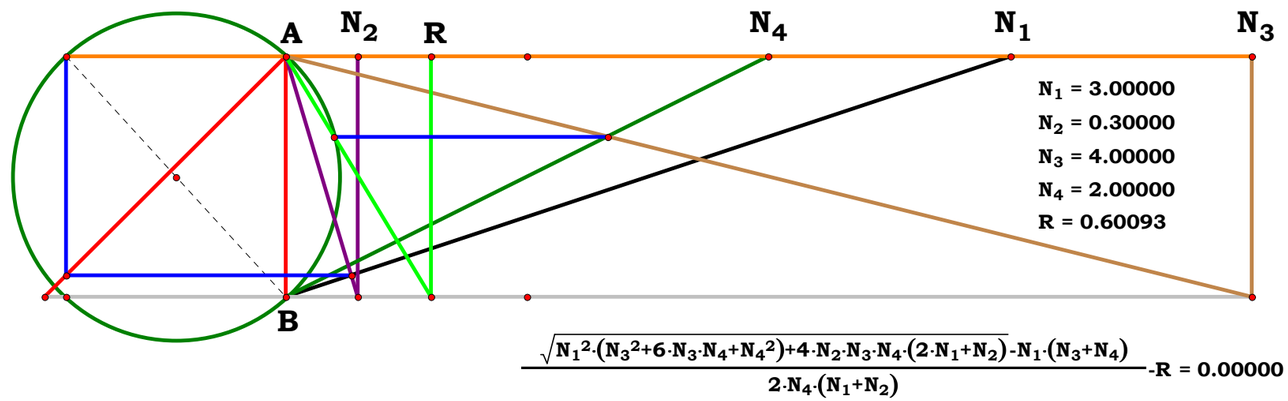
Descriptions.

$AC := \frac{N_1}{N_1 + N_2}$ $AH := \frac{AB \cdot N_4}{N_4 + N_3}$

$EG := \sqrt{AB^2 + AC^2}$ $EF := AH + \frac{(EG - AB)}{2}$

$FJ := \sqrt{EF \cdot (EG - EF)}$ $HJ := FJ - \frac{AC}{2}$

$R := \frac{HJ \cdot AB}{AH}$ $R = 0.611133$



$N_1 = 3.00000$
$N_2 = 0.30000$
$N_3 = 4.00000$
$N_4 = 2.00000$
$R = 0.60093$

$\frac{\sqrt{N_1^2 \cdot (N_3^2 + 6 \cdot N_3 \cdot N_4 + N_4^2) + 4 \cdot N_2 \cdot N_3 \cdot N_4 \cdot (2 \cdot N_1 + N_2)} - N_1 \cdot (N_3 + N_4)}{2 \cdot N_4 \cdot (N_1 + N_2)} - R = 0.00000$

Definitions.

$$R - \frac{\left[\sqrt{AC^2 \cdot N_3^2 + 2 \cdot AC^2 \cdot N_3 \cdot N_4 + AC^2 \cdot N_4^2 + 4 \cdot N_3 \cdot N_4} - AC \cdot \sqrt{(N_3 + N_4)^2}\right] \cdot (N_3 + N_4)}{2 \cdot N_4 \cdot \sqrt{(N_3 + N_4)^2}} = 0$$

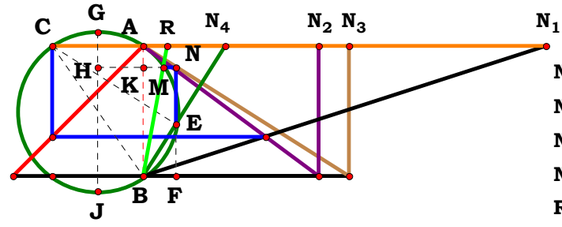
$$R - -\frac{N_1 \cdot N_3 - \sqrt{N_1^2 \cdot (N_3^2 + 6 \cdot N_3 \cdot N_4 + N_4^2) + 4 \cdot N_2 \cdot N_3 \cdot N_4 \cdot (2 \cdot N_1 + N_2)} + N_1 \cdot N_4}{2 \cdot (N_1 + N_2) \cdot N_4} = 0$$

$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{\sqrt{B^2 \cdot (C^2 + D^2) + 2 \cdot C \cdot D \cdot (2 \cdot A^2 + 4 \cdot A \cdot B + 3 \cdot B^2)} - B \cdot (C + D)}{2 \cdot C \cdot (A + B)} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{\sqrt{W^2 \cdot n^2 \cdot (Y^2 \cdot p^2 + Z^2 \cdot o^2) + 2 \cdot Y \cdot Z \cdot o \cdot p \cdot (3 \cdot W^2 \cdot n^2 + 4 \cdot W \cdot X \cdot m \cdot n + 2 \cdot X^2 \cdot m^2)} - W \cdot n \cdot (Y \cdot p + Z \cdot o)}{2 \cdot (W \cdot n + X \cdot m) \cdot Z \cdot o} = 0$$



$N_1 = 3.08717$
$N_2 = 1.34373$
$N_3 = 1.58092$
$N_4 = 0.62935$
$R = 0.18745$

Unit. $AB := 1$ Given. $N_1 := 3.08717$ $N_2 := 1.34373$ $N_3 := 1.58092$ $N_4 := .62935$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

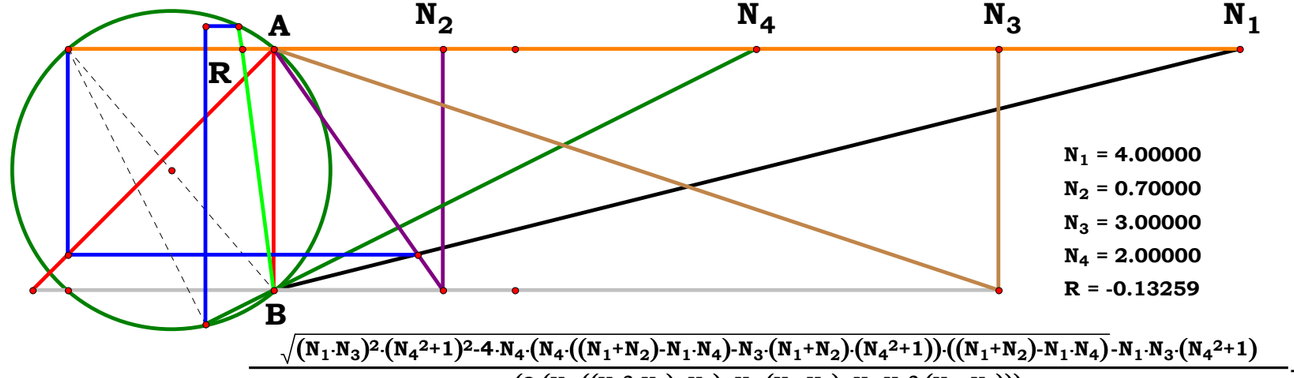
$AC := \frac{N_1}{N_1 + N_2}$ $CN_4 := N_4 + AC$ $BN_4 := \sqrt{N_4^2 + AB^2}$

$EN_4 := \frac{N_4 \cdot CN_4}{BN_4}$ $BF := \frac{N_4 \cdot (BN_4 - EN_4)}{BN_4}$ $AK := \frac{AB \cdot BF}{N_3}$

$GJ := \sqrt{AB^2 + AC^2}$ $GH := AK + \frac{GJ - AB}{2}$

$HM := \sqrt{GH \cdot (GJ - GH)}$ $KM := HM - \frac{AC}{2}$

$R := \frac{KM \cdot AB}{AB - AK}$ $R = 0.187449$



$N_1 = 4.00000$
$N_2 = 0.70000$
$N_3 = 3.00000$
$N_4 = 2.00000$
$R = -0.13259$

$$\frac{\sqrt{(N_1 \cdot N_3)^2 \cdot (N_4^2+1)^2 - 4 \cdot N_4 \cdot (N_4 \cdot ((N_1+N_2) - N_1 \cdot N_4) - N_3 \cdot (N_1+N_2) \cdot (N_4^2+1)) \cdot ((N_1+N_2) - N_1 \cdot N_4)} - N_1 \cdot N_3 \cdot (N_4^2+1)}{(2 \cdot (N_1 \cdot ((N_4^2 - N_4) + N_3) + N_2 \cdot (N_3 - N_4) + N_3 \cdot N_4^2 \cdot (N_1+N_2)))} - R = 0.00000$$

Definitions.

$$R - \frac{N_3 \cdot (N_4^2+1) \cdot \left[AC \cdot N_3 \cdot (N_4^2+1) - \sqrt{AC \cdot N_3 \cdot N_4^2 \cdot (2 \cdot AC \cdot N_3 - 4 \cdot N_4^2 + AC \cdot N_3 \cdot N_4^2 - 4) + AC^2 \cdot N_3^2 - 4 \cdot AC \cdot N_4^3 \cdot (AC \cdot N_4 - 2) + 4 \cdot N_3 \cdot N_4 \cdot (N_4^2+1) - 4 \cdot N_4^2}\right]}{2 \cdot \sqrt{[N_3 \cdot (N_4^2+1)]^2} \cdot (N_4 - N_3 - N_3 \cdot N_4^2 - AC \cdot N_4^2)} = 0$$

$$R - \frac{N_3 \cdot (N_1+N_2) \cdot (N_4^2+1) \cdot \left[\sqrt{N_1^2 \cdot N_3^2 \cdot (N_4^2+1)^2 - 4 \cdot N_4 \cdot [N_4 \cdot (N_1+N_2-N_1 \cdot N_4) - N_3 \cdot (N_1+N_2) \cdot (N_4^2+1)] \cdot (N_1+N_2-N_1 \cdot N_4)} - N_1 \cdot N_3 \cdot (N_4^2+1)\right]}{2 \cdot \sqrt{N_3^2 \cdot (N_1+N_2)^2 \cdot (N_4^2+1)^2} \cdot (N_1 \cdot N_4^2 + N_1 \cdot N_3 - N_1 \cdot N_4 + N_2 \cdot N_3 - N_2 \cdot N_4 + N_1 \cdot N_3 \cdot N_4^2 + N_2 \cdot N_3 \cdot N_4^2)} = 0$$

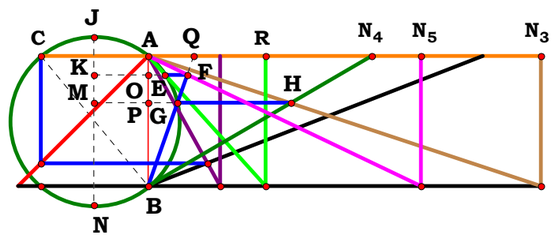
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{B \cdot (D^2 + N_u^2) - \sqrt{B^2 \cdot (D^2 + N_u^2)^2 + 4 \cdot C \cdot [(A+B) \cdot (D^2 - C \cdot D + N_u^2) + B \cdot C \cdot N_u] \cdot [D \cdot (A+B) - B \cdot N_u]}}{2 \cdot [D \cdot (C-D) \cdot (A+B) - N_u \cdot [B \cdot C + N_u \cdot (A+B)]]} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{\sqrt{Y^2 \cdot W^2 \cdot n^2 \cdot (Z^2+p^2)^2 - 4 \cdot Z \cdot o \cdot (W \cdot Z \cdot n - W \cdot n \cdot p - X \cdot m \cdot p) \cdot [Y \cdot (Z^2+p^2) \cdot (W \cdot n + X \cdot m) + Z \cdot o \cdot (W \cdot Z \cdot n - W \cdot n \cdot p - X \cdot m \cdot p)]} - W \cdot Y \cdot n \cdot (Z^2+p^2)}{2 \cdot (W \cdot Y \cdot Z^2 \cdot n + X \cdot Y \cdot Z^2 \cdot m + W \cdot Y \cdot n \cdot p^2 + W \cdot Z^2 \cdot n \cdot o + X \cdot Y \cdot m \cdot p^2 - W \cdot Z \cdot n \cdot o \cdot p - X \cdot Z \cdot m \cdot o \cdot p)} = 0$$

4RST3AB3R3



$N_1 = 2.56414$
$N_2 = 0.54950$
$N_3 = 3.01441$
$N_4 = 1.71415$
$N_5 = 2.09213$
$R = 0.90124$

Unit. $AB := 1$ Given. $N_1 := 3.87172$ $N_2 := 1.45996$ $N_3 := .70920$
$N_4 := 1.75290$ $N_5 := 3.09945$

Descriptions.

$$AC := \frac{N_1}{N_1 + N_2} \qquad BP := \frac{AB \cdot N_3}{N_3 + N_4}$$

$$JN := \sqrt{AB^2 + AC^2} \qquad JM := JN - \left(BP + \frac{JN - AB}{2}\right)$$

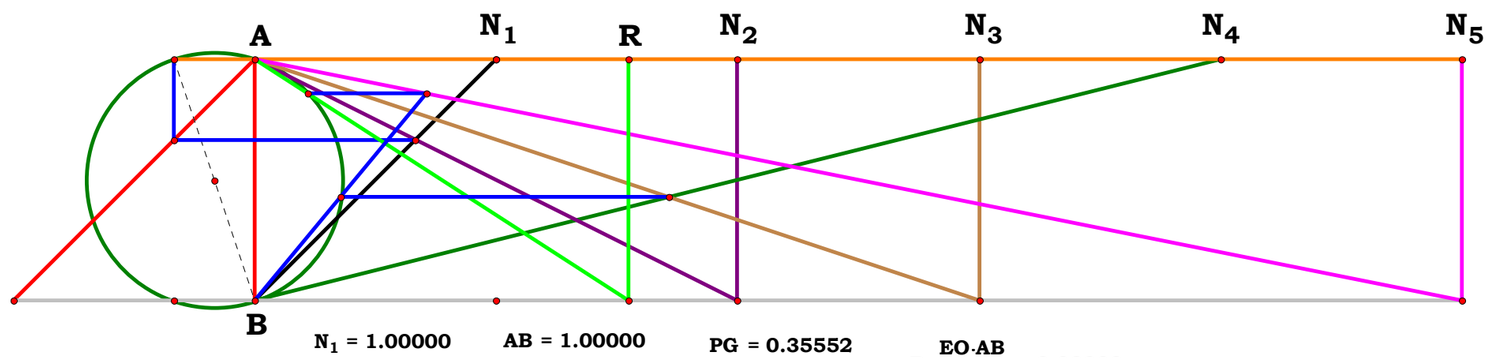
$$GM := \sqrt{JM \cdot (JN - JM)} \qquad PG := GM - \frac{AC}{2}$$

$$AQ := \frac{PG \cdot AB}{BP} \qquad AO := \frac{AB \cdot AQ}{AQ + N_5}$$

$$JK := AO + \frac{JN - AB}{2} \qquad EK := \sqrt{JK \cdot (JN - JK)}$$

$$EO := EK - \frac{AC}{2} \qquad AR := \frac{EO \cdot AB}{AO}$$

$AR = 0.892637$



$N_1 = 1.00000$
$N_2 = 2.00000$
$N_3 = 3.00000$
$N_4 = 4.00000$
$N_5 = 5.00000$
$R = 1.54891$

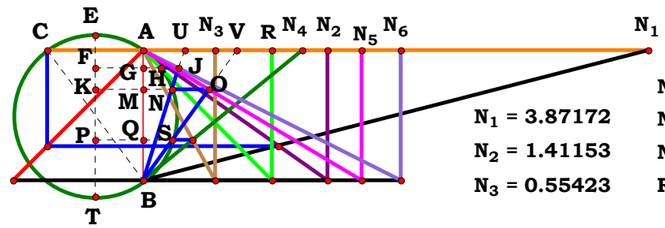
$AB = 1.00000$
$AC = 0.33333$
$BP = 0.42857$
$JN = 1.05409$
$JM = 0.59847$
$GM = 0.52218$

$PG = 0.35552$
$AQ = 0.82954$
$AO = 0.14230$

$R - \frac{EO \cdot AB}{AO} = 0.00000$

$JK = 0.16935$
$EK = 0.38708$
$EO = 0.22041$

4RST3AB3R4



$N_1 = 3.87172$ $N_4 = 1.22018$
$N_2 = 1.41153$ $N_5 = 1.67564$
$N_3 = 0.55423$ $N_6 = 1.97696$
R = 0.99248

Unit. $AB := 1$ **Given.** $N_1 := 3.87172$ $N_2 := 1.41153$ $N_3 := .55423$ $N_4 := 1.22018$ $N_5 := 1.67564$ $N_6 := 1.97696$

Descriptions.

$$AC := \frac{N_1}{N_1 + N_2} \qquad BQ := \frac{AB \cdot N_3}{N_3 + N_4}$$

$$ET := \sqrt{AB^2 + AC^2} \qquad EP := ET - \left(BQ + \frac{ET - AB}{2}\right)$$

$$PS := \sqrt{EP \cdot (ET - EP)} \qquad QS := PS - \frac{AC}{2}$$

$$AV := \frac{QS \cdot AB}{BQ}$$

$$BM := \frac{AB \cdot N_5}{AV + N_5}$$

$$KT := BM + \frac{ET - AB}{2}$$

$$KN := \sqrt{KT \cdot (ET - KT)}$$

$$MN := KN - \frac{AC}{2}$$

$$AU := \frac{MN \cdot AB}{BM}$$

$$BG := \frac{AB \cdot N_6}{AU + N_6}$$

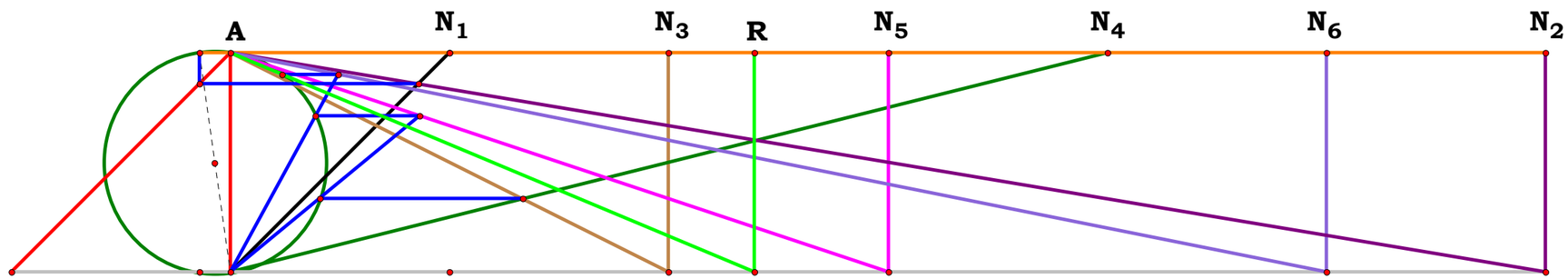
$$AG := AB - BG$$

$$EF := AG + \frac{ET - AB}{2} \qquad FH := \sqrt{EF \cdot (ET - EF)}$$

$$GH := FH - \frac{AC}{2} \qquad AR := \frac{GH \cdot AB}{AG}$$

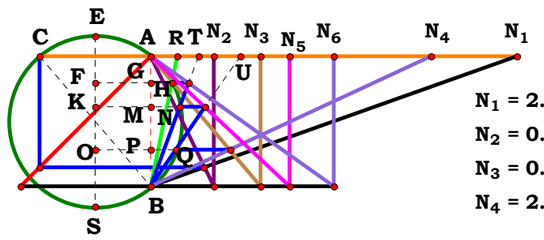
$AR = 0.992484$

Definitions.



$N_1 = 1.00000$ $AB = 1.00000$ $AV = 1.21607$ $AG = 0.09815$
$N_2 = 6.00000$ $AC = 0.14286$ $BM = 0.71156$ $EF = 0.10323$
$N_3 = 2.00000$ $BQ = 0.33333$ $KT = 0.71664$ $FH = 0.30597$
$N_4 = 4.00000$ $ET = 1.01015$ $KN = 0.45863$ $GH = 0.23454$
$N_5 = 3.00000$ $EP = 0.67174$ $MN = 0.38720$ $R - \frac{GH \cdot AB}{AG} = 0.00000$
$N_6 = 5.00000$ $PS = 0.47679$ $AU = 0.54416$
$R = 2.38964$ $QS = 0.40536$ $BG = 0.90185$

4RST3AB3R5



N_1 = 2.80628
N_2 = 0.48170
N_3 = 0.84480
N_4 = 2.15002
N_5 = 1.06544
N_6 = 1.40550
R = 0.20285

Unit. $AB := 1$ **Given.** $N_1 := 2.80628$ $N_2 := .48170$ $N_3 := .84480$

$N_4 := 2.15002$ $N_5 := 1.06544$ $N_6 := 1.40550$

Descriptions.

$$AC := \frac{N_1}{N_1 + N_2} \qquad BP := \frac{AB \cdot N_3}{N_3 + N_4}$$

$$ES := \sqrt{AB^2 + AC^2} \qquad OS := BP + \frac{ES - AB}{2}$$

$$OQ := \sqrt{OS \cdot (ES - OS)} \qquad PQ := OQ - \frac{AC}{2}$$

$$AU := \frac{PQ \cdot AB}{BP}$$

$$BM := \frac{AB \cdot N_5}{N_5 + AU}$$

$$KS := BM + \frac{ES - AB}{2}$$

$$KN := \sqrt{KS \cdot (ES - KS)}$$

$$MN := KN - \frac{AC}{2}$$

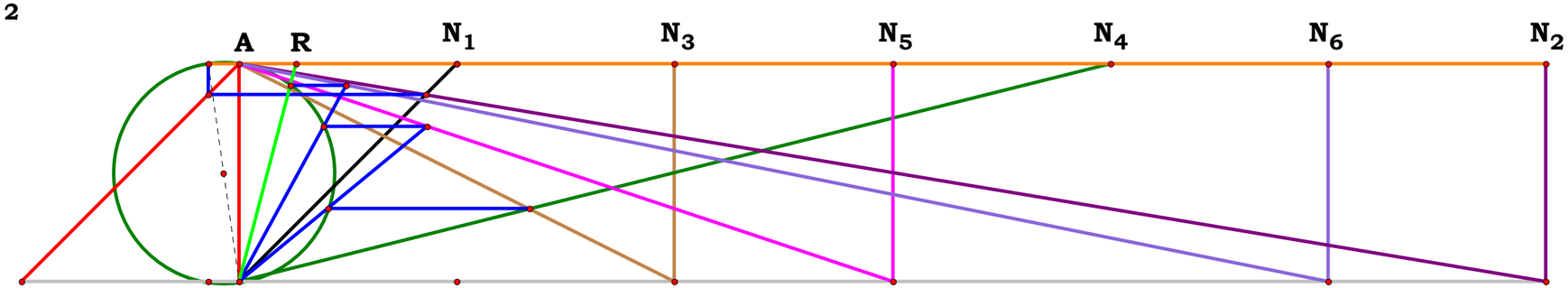
$$AT := \frac{MN \cdot AB}{BM}$$

$$BG := \frac{N_6 \cdot AB}{N_6 + AT} \qquad FS := BG + \frac{ES - AB}{2}$$

$$FH := \sqrt{FS \cdot (ES - FS)} \qquad GH := FH - \frac{AC}{2}$$

$$AR := \frac{GH \cdot AB}{BG} \qquad AR = 0.20285$$

Definitions.



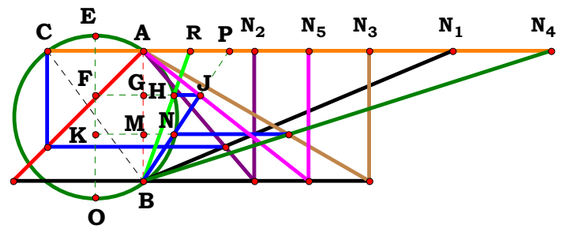
N_1 = 1.00000
N_2 = 6.00000
N_3 = 2.00000
N_4 = 4.00000
N_5 = 3.00000
N_6 = 5.00000
R = 0.26007

AB = 1.00000
AC = 0.14286
BP = 0.33333
ES = 1.01015
OS = 0.33841
OQ = 0.47679
PQ = 0.40536

AU = 1.21607
BM = 0.71156
KS = 0.71664
KN = 0.45863
MN = 0.38720
AT = 0.54416
BG = 0.90185

FS = 0.90693
FH = 0.30597
GH = 0.23454
R-$\frac{GH \cdot AB}{BG}$ = 0.00000

4RST3AB3R6



$N_1 = 2.37042$
$N_2 = 0.84976$
$N_3 = 1.73589$
$N_4 = 3.12828$
$N_5 = 1.26884$
$R = 0.35378$

Unit. $AB := 1$ Given. $N_1 := 2.37042$ $N_2 := .84976$ $N_3 := 1.73598$ $N_4 := 3.12828$ $N_5 := 1.26884$

Descriptions.

$$AC := \frac{N_1}{N_1 + N_2} \qquad BM := \frac{N_3 \cdot AB}{N_3 + N_4}$$

$$EO := \sqrt{AB^2 + AC^2} \qquad KO := BM + \frac{EO - AB}{2}$$

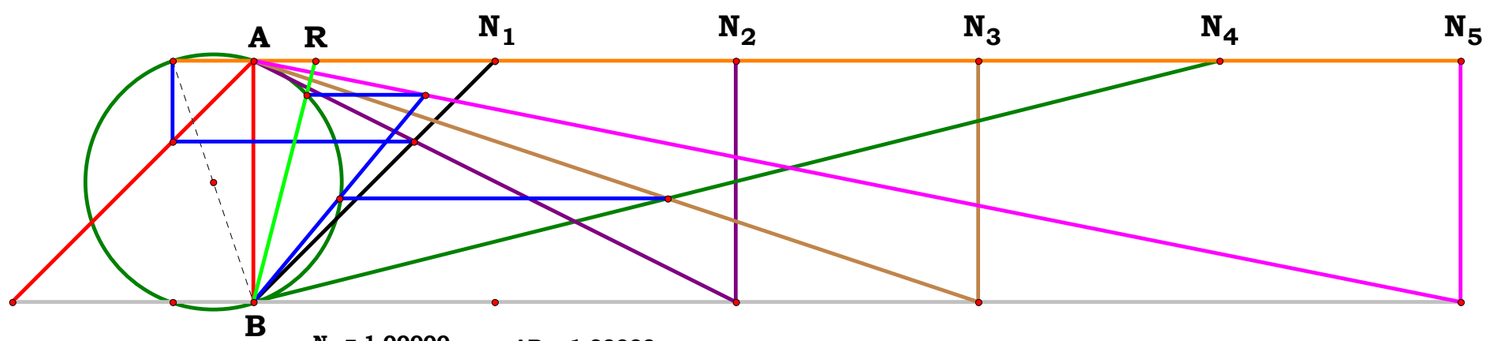
$$KN := \sqrt{KO \cdot (EO - KO)} \qquad MN := KN - \frac{AC}{2}$$

$$AP := \frac{MN \cdot AB}{BM} \qquad BG := \frac{N_5 \cdot AB}{AP + N_5}$$

$$FO := BG + \frac{EO - AB}{2} \qquad FH := \sqrt{FO \cdot (EO - FO)}$$

$$GH := FH - \frac{AC}{2} \qquad AR := \frac{GH \cdot AB}{BG}$$

$AR = 0.353777$



$N_1 = 1.00000$
$N_2 = 2.00000$
$N_3 = 3.00000$
$N_4 = 4.00000$
$N_5 = 5.00000$
$R = 0.25698$

$AB = 1.00000$
$AC = 0.33333$
$BM = 0.42857$
$EO = 1.05409$
$KO = 0.45562$
$KN = 0.52218$

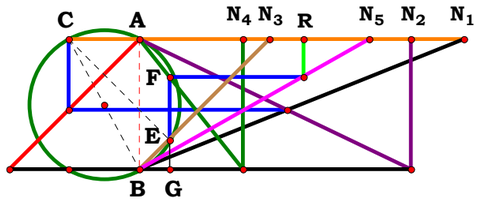
$MN = 0.35552$
$AP = 0.82954$
$BG = 0.85770$
$FO = 0.88475$
$FH = 0.38708$
$GH = 0.22041$

$GH \cdot AB$

$R - \frac{GH \cdot AB}{BG} = 0.00000$

Definitions.

4RST3AB3R7



$N_1 = 2.48665$
$N_2 = 2.07985$
$N_3 = 0.99977$
$N_4 = 0.79401$
$N_5 = 1.76281$
$R = 1.25708$

Unit. $AB := 1$ Given. $N_1 := 2.48665$ $N_2 := 2.07985$ $N_3 := .99977$

$N_4 := .79401$ $N_5 := 1.76281$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$

$V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $l := \frac{V}{N_1}$ $m := \frac{W}{N_2}$ $n := \frac{X}{N_3}$ $o := \frac{Y}{N_4}$ $p := \frac{Z}{N_5}$

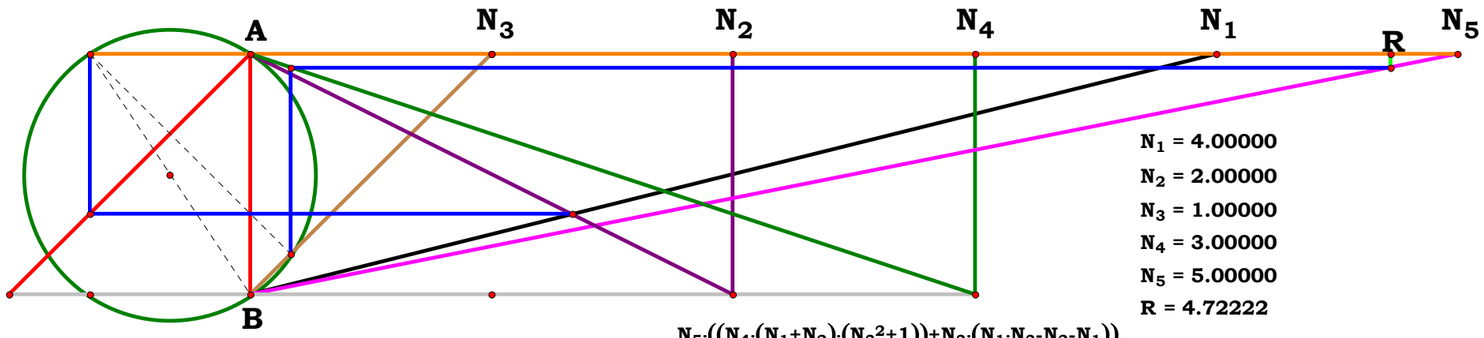
Descriptions.

$$AC := \frac{N_1}{N_1 + N_2} \qquad CN_3 := N_3 + AC$$

$$BN_3 := \sqrt{N_3^2 + AB^2} \qquad EN_3 := \frac{N_3 \cdot CN_3}{BN_3}$$

$$BG := \frac{N_3 \cdot (BN_3 - EN_3)}{BN_3} \qquad FG := \frac{AB \cdot (N_4 - BG)}{N_4}$$

$$R := \frac{N_5 \cdot FG}{AB} \qquad R = 1.257081$$



$N_1 = 4.00000$
$N_2 = 2.00000$
$N_3 = 1.00000$
$N_4 = 3.00000$
$N_5 = 5.00000$
$R = 4.72222$

$$\frac{N_5 \cdot ((N_4 \cdot (N_1 + N_2)) \cdot (N_3^2 + 1)) + N_3 \cdot (N_1 \cdot N_3 - N_2 - N_1)}{(N_4 \cdot (N_1 + N_2)) \cdot (N_3^2 + 1))} - R = 0.00000$$

Definitions.

$$R - \frac{N_5 \cdot \left(N_4 - N_3 + N_3^2 \cdot N_4 + AC \cdot N_3^2\right)}{N_4 \cdot \left(N_3^2 + 1\right)} = 0$$

$$R - \frac{N_4 \cdot N_5 \cdot (N_1 + N_2) \cdot \left(N_3^2 + 1\right) + N_3 \cdot N_5 \cdot \left(N_1 \cdot N_3 - N_2 - N_1\right)}{N_4 \cdot (N_1 + N_2) \cdot \left(N_3^2 + 1\right)} = 0$$

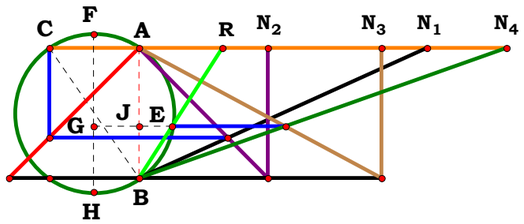
$$N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0 \quad N_4 - \frac{N_u}{D} = 0 \quad N_5 - \frac{N_u}{E} = 0$$

$$R - \frac{N_u^3 \cdot (A + B) + B \cdot D \cdot N_u^2 + N_u \cdot C \cdot (C - D) \cdot (A + B)}{E \cdot \left(C^2 + N_u^2\right) \cdot (A + B)} = 0$$

$$N_1 - \frac{V}{l} = 0 \quad N_2 - \frac{W}{m} = 0 \quad N_3 - \frac{X}{n} = 0 \quad N_4 - \frac{Y}{o} = 0 \quad N_5 - \frac{Z}{p} = 0$$

$$R - \frac{Y \cdot Z \cdot \left(X^2 + n^2\right) \cdot (V \cdot m + W \cdot l) + X \cdot Z \cdot o \cdot (V \cdot X \cdot m - V \cdot m \cdot n - W \cdot l \cdot n)}{Y \cdot p \cdot (V \cdot m + W \cdot l) \cdot \left(X^2 + n^2\right)} = 0$$

4RST3AB3R8



$N_1 = 2.20577$
$N_2 = 0.98536$
$N_3 = 1.86181$
$N_4 = 2.81833$
$R = 0.63739$

Unit. $AB := 1$ Given. $N_1 := 2.20577$ $N_2 := .98536$ $N_3 := 1.86181$ $N_4 := 2.81833$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

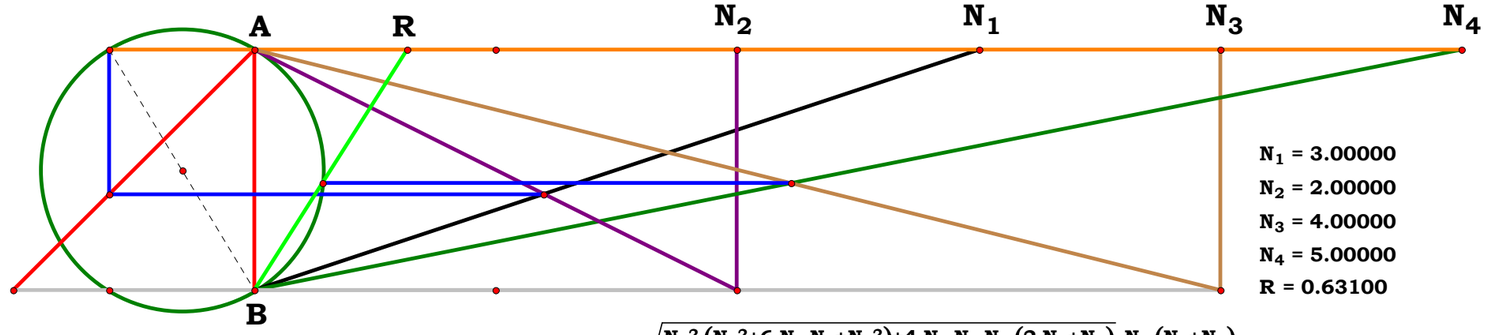
Descriptions.

$$AC := \frac{N_1}{N_1 + N_2} \qquad BJ := \frac{AB \cdot N_3}{N_3 + N_4}$$

$$FH := \sqrt{AB^2 + AC^2} \qquad GH := BJ + \frac{FH - AB}{2}$$

$$GE := \sqrt{GH \cdot (FH - GH)} \qquad JE := GE - \frac{AC}{2}$$

$$R := \frac{JE \cdot AB}{BJ} \qquad R = 0.637387$$



$N_1 = 3.00000$
$N_2 = 2.00000$
$N_3 = 4.00000$
$N_4 = 5.00000$
$R = 0.63100$

$$\frac{\sqrt{N_1^2 \cdot (N_3^2 + 6 \cdot N_3 \cdot N_4 + N_4^2) + 4 \cdot N_2 \cdot N_3 \cdot N_4 \cdot (2 \cdot N_1 + N_2)} - N_1 \cdot (N_3 + N_4)}{2 \cdot N_3 \cdot (N_1 + N_2)} - R = 0.00000$$

Definitions.

$$R - \frac{\left[\sqrt{AC^2 \cdot N_3^2 + 2 \cdot AC^2 \cdot N_3 \cdot N_4 + AC^2 \cdot N_4^2 + 4 \cdot N_3 \cdot N_4} - AC \cdot \sqrt{(N_3 + N_4)^2}\right] \cdot (N_3 + N_4)}{2 \cdot N_3 \cdot \sqrt{(N_3 + N_4)^2}} = 0$$

$$R - \frac{\sqrt{N_1^2 \cdot (N_3^2 + 6 \cdot N_3 \cdot N_4 + N_4^2) + 4 \cdot N_2 \cdot N_3 \cdot N_4 \cdot (2 \cdot N_1 + N_2)} - N_1 \cdot (N_3 + N_4)}{2 \cdot (N_1 + N_2) \cdot N_3} = 0$$

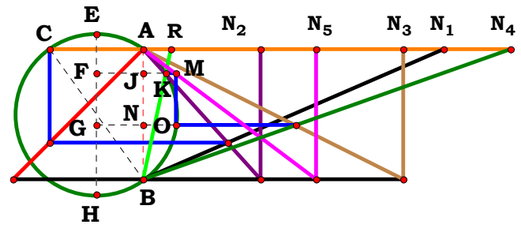
$$N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0 \quad N_4 - \frac{N_u}{D} = 0$$

$$R - \frac{\sqrt{B^2 \cdot (C^2 + D^2) + 2 \cdot C \cdot D \cdot (2 \cdot A^2 + 4 \cdot A \cdot B + 3 \cdot B^2)} - B \cdot (C + D)}{2 \cdot D \cdot (A + B)} = 0$$

$$N_1 - \frac{W}{m} = 0 \quad N_2 - \frac{X}{n} = 0 \quad N_3 - \frac{Y}{o} = 0 \quad N_4 - \frac{Z}{p} = 0$$

$$R - \frac{\sqrt{W^2 \cdot n^2 \cdot (Y^2 \cdot p^2 + 6 \cdot Y \cdot Z \cdot o \cdot p + Z^2 \cdot o^2) + 4 \cdot X \cdot Y \cdot Z \cdot m \cdot o \cdot p \cdot (2 \cdot W \cdot n + X \cdot m)} - W \cdot n \cdot (Y \cdot p + Z \cdot o)}{2 \cdot Y \cdot p \cdot (W \cdot n + X \cdot m)} = 0$$

4RST3AB3R9



$N_1 = 2.30262$
$N_2 = 0.89818$
$N_3 = 1.99741$
$N_4 = 2.81833$
$N_5 = 1.32695$
$R = 0.21169$

Unit. $AB := 1$ Given. $N_1 := 2.30262$ $N_2 := .89818$ $N_3 := 1.99741$

$N_4 := 2.81833$ $N_5 := 1.32695$

Descriptions.

$$AC := \frac{N_1}{N_1 + N_2} \qquad EH := \sqrt{AB^2 + AC^2}$$

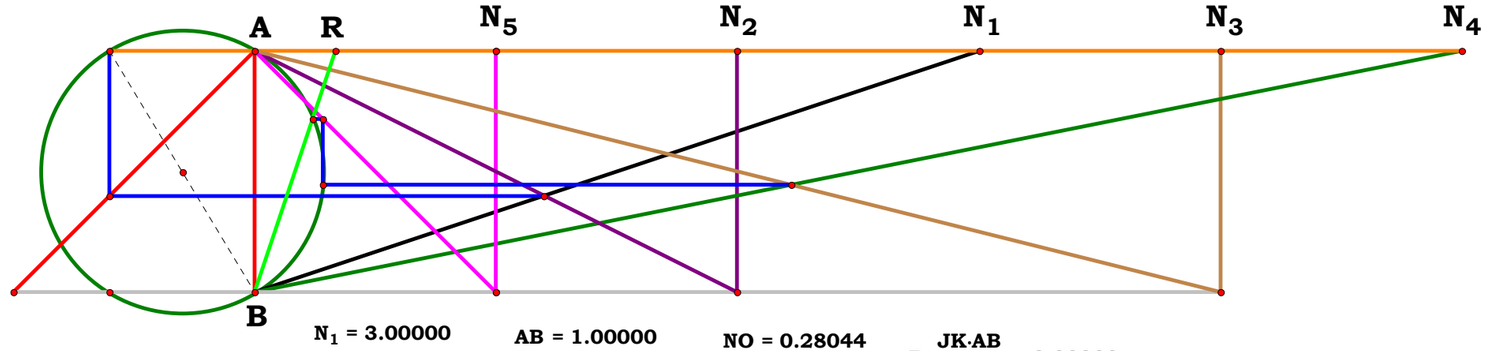
$$BN := \frac{AB \cdot N_3}{N_3 + N_4} \qquad GH := BN + \frac{EH - AB}{2}$$

$$GO := \sqrt{GH \cdot (EH - GH)} \qquad NO := GO - \frac{AC}{2}$$

$$BK := \frac{AB \cdot (N_5 - NO)}{N_5} \qquad FH := BK + \frac{EH - AB}{2}$$

$$FK := \sqrt{FH \cdot (EH - FH)} \qquad JK := FK - \frac{AC}{2}$$

$$AR := \frac{JK \cdot AB}{BK} \qquad AR = 0.211686$$



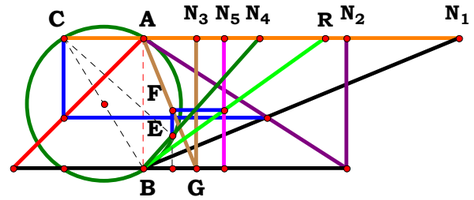
$N_1 = 3.00000$
$N_2 = 2.00000$
$N_3 = 4.00000$
$N_4 = 5.00000$
$N_5 = 1.00000$
$R = 0.33379$

$AB = 1.00000$
$AC = 0.60000$
$EH = 1.16619$
$BN = 0.44444$
$GH = 0.52754$
$GO = 0.58044$

$NO = 0.28044$
$BK = 0.71956$
$FH = 0.80265$
$FK = 0.54018$
$JK = 0.24018$

$R - \frac{JK \cdot AB}{BK} = 0.00000$

4RST3AB3R10



$N_1 = 2.41885$
$N_2 = 1.55682$
$N_3 = 0.40894$
$N_4 = 0.89086$
$N_5 = 0.61989$
$R = 1.39694$

Unit. $AB := 1$ Given. $N_1 := 2.41885$ $N_2 := 1.55682$ $N_3 := .40894$ $N_4 := .89086$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $N_5 := .61989$

$V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $l := \frac{V}{N_1}$ $m := \frac{W}{N_2}$ $n := \frac{X}{N_3}$ $o := \frac{Y}{N_4}$ $p := \frac{Z}{N_5}$

Descriptions.

$$AC := \frac{N_1}{N_1 + N_2} \qquad CN_4 := N_4 + AC$$

$$BN_4 := \sqrt{N_4^2 + AB^2} \qquad EN_4 := \frac{N_4 \cdot CN_4}{BN_4}$$

$$BG := N_4 \cdot \frac{(BN_4 - EN_4)}{BN_4} \qquad FG := AB \cdot \frac{(N_3 - BG)}{N_3}$$

$$R := \frac{N_5 \cdot AB}{FG} \qquad R = 1.396942$$

Definitions.

$$R - \frac{N_3 \cdot N_5 \cdot (N_4^2 + 1)}{N_3 - N_4 + N_3 \cdot N_4^2 + AC \cdot N_4^2} = 0$$

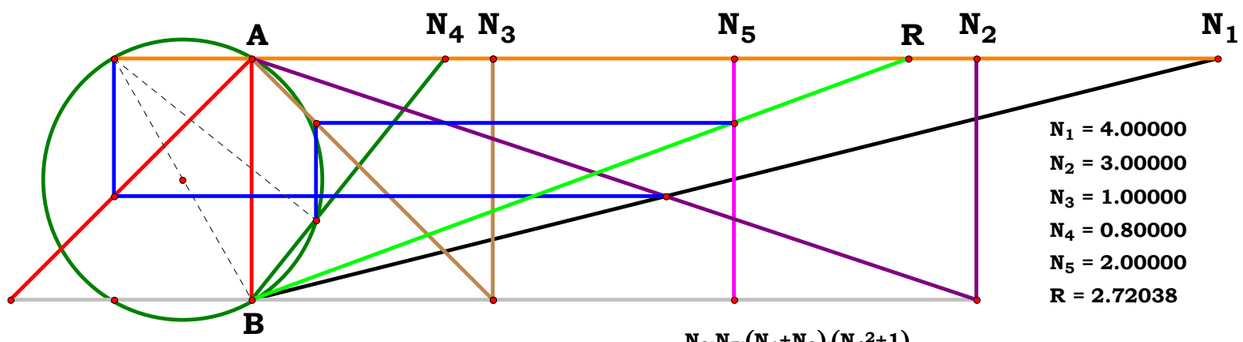
$$R - \frac{N_3 \cdot N_5 \cdot (N_1 + N_2) \cdot (N_4^2 + 1)}{N_1 \cdot (N_4^2 - N_4 + N_3) + N_2 \cdot (N_3 - N_4) + N_3 \cdot N_4^2 \cdot (N_1 + N_2)} = 0$$

$$N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0 \quad N_4 - \frac{N_u}{D} = 0 \quad N_5 - \frac{N_u}{E} = 0$$

$$R - \frac{N_u \cdot (D^2 + N_u^2) \cdot (A + B)}{E \cdot \left[(D^2 - C \cdot D + N_u^2) \cdot (A + B) + B \cdot C \cdot N_u \right]} = 0$$

$$N_1 - \frac{V}{l} = 0 \quad N_2 - \frac{W}{m} = 0 \quad N_3 - \frac{X}{n} = 0 \quad N_4 - \frac{Y}{o} = 0 \quad N_5 - \frac{Z}{p} = 0$$

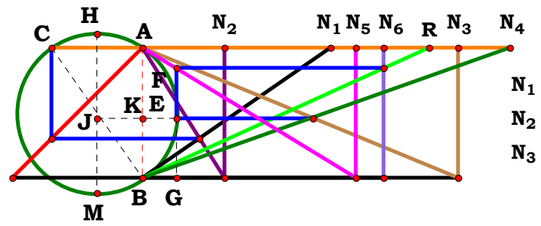
$$R - \frac{X \cdot Z \cdot (V \cdot m + W \cdot l) \cdot (Y^2 + o^2)}{p \cdot \left[X \cdot (Y^2 + o^2) \cdot (V \cdot m + W \cdot l) + Y \cdot n \cdot (V \cdot Y \cdot m - V \cdot m \cdot o - W \cdot l \cdot o) \right]} = 0$$



$N_1 = 4.00000$
$N_2 = 3.00000$
$N_3 = 1.00000$
$N_4 = 0.80000$
$N_5 = 2.00000$
$R = 2.72038$

$$\frac{N_3 \cdot N_5 \cdot (N_1 + N_2) \cdot (N_4^2 + 1)}{N_1 \cdot ((N_4^2 - N_4) + N_3) + N_2 \cdot (N_3 - N_4) + N_3 \cdot N_4^2 \cdot (N_1 + N_2)} - R = 0.00000$$

4RST3AB3R11



$N_1 = 1.44059$ $N_4 = 2.81833$
$N_2 = 0.62698$ $N_5 = 1.63690$
$N_3 = 2.42358$ $N_6 = 1.85104$
$R = 2.20035$

Descriptions.

Unit. $AB := 1$ Given. $N_1 := 1.44059$ $N_2 := .62698$ $N_3 := 2.42358$

$N_4 := 2.81833$ $N_5 := 1.63690$ $N_6 := 1.85104$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $F := \frac{N_u}{N_6}$

$U := 18$ $V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

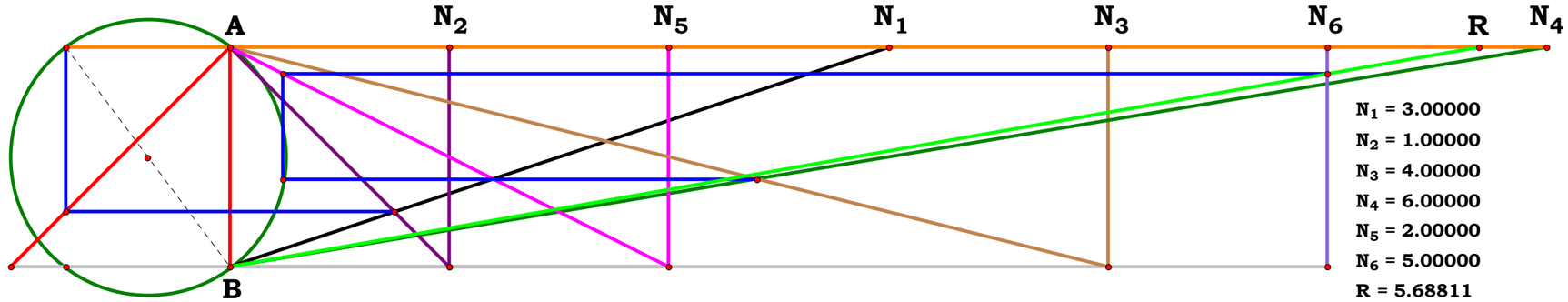
$k := \frac{U}{N_1}$ $l := \frac{V}{N_2}$ $m := \frac{W}{N_3}$ $n := \frac{X}{N_4}$ $o := \frac{Y}{N_5}$ $p := \frac{Z}{N_6}$

$AC := \frac{N_1}{N_1 + N_2}$ $EG := \frac{N_3 \cdot AB}{N_3 + N_4}$ $HM := \sqrt{AB^2 + AC^2}$

$JM := EG + \frac{HM - AB}{2}$ $JE := \sqrt{JM \cdot (HM - JM)}$

$BG := JE - \frac{AC}{2}$ $FG := \frac{AB \cdot (N_5 - BG)}{N_5}$

$R := \frac{N_6 \cdot AB}{FG}$ $R = 2.200343$



$N_1 = 3.00000$
$N_2 = 1.00000$
$N_3 = 4.00000$
$N_4 = 6.00000$
$N_5 = 2.00000$
$N_6 = 5.00000$
$R = 5.68811$

Definitions.

$$R - \frac{2 \cdot N_5 \cdot N_6 \cdot \sqrt{(N_3 + N_4)^2}}{\sqrt{(N_3 + N_4)^2} \cdot (AC + 2 \cdot N_5) - \sqrt{AC^2 \cdot (N_3 + N_4)^2 + 4 \cdot N_3 \cdot N_4}} = 0$$

$$\frac{2 \cdot N_5 \cdot N_6 \cdot (N_1 + N_2) \cdot (N_3 + N_4)}{(N_1 \cdot (N_3 + N_4) + 2 \cdot N_5 \cdot (N_3 + N_4) \cdot (N_1 + N_2)) - \sqrt{N_1^2 \cdot (N_3^2 + N_4^2) + 2 \cdot N_3 \cdot N_4 \cdot (3 \cdot N_1^2 + 4 \cdot N_1 \cdot N_2 + 2 \cdot N_2^2)}} - R = 0.00000$$

$$R - \frac{2 \cdot N_5 \cdot N_6 \cdot (N_1 + N_2) \cdot (N_3 + N_4)}{N_1 \cdot (N_3 + N_4) + 2 \cdot N_5 \cdot (N_3 + N_4) \cdot (N_1 + N_2) - \sqrt{N_1^2 \cdot (N_3^2 + N_4^2) + 2 \cdot N_3 \cdot N_4 \cdot (3 \cdot N_1^2 + 4 \cdot N_1 \cdot N_2 + 2 \cdot N_2^2)}} = 0$$

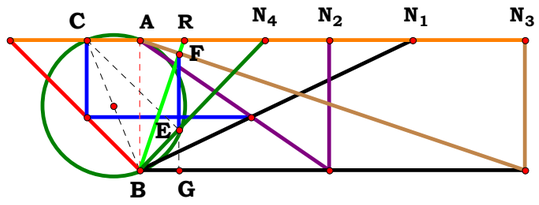
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$ $N_6 - \frac{N_u}{F} = 0$

$$R - \frac{2 \cdot N_u^2 \cdot (A + B) \cdot (C + D)}{F \cdot \left[(C + D) \cdot \left[B \cdot E + 2 \cdot N_u \cdot (A + B) \right] - E \cdot \sqrt{B^2 \cdot (C^2 + D^2) + 2 \cdot C \cdot D \cdot (2 \cdot A^2 + 4 \cdot A \cdot B + 3 \cdot B^2)} \right]} = 0$$

$N_1 - \frac{U}{k} = 0$ $N_2 - \frac{V}{l} = 0$ $N_3 - \frac{W}{m} = 0$ $N_4 - \frac{X}{n} = 0$ $N_5 - \frac{Y}{o} = 0$ $N_6 - \frac{Z}{p} = 0$

$$R - \frac{2 \cdot Y \cdot Z \cdot (U \cdot l + V \cdot k) \cdot (W \cdot n + X \cdot m)}{p \cdot \left[2 \cdot Y \cdot (W \cdot n + X \cdot m) \cdot (U \cdot l + V \cdot k) + U \cdot l \cdot o \cdot (W \cdot n + X \cdot m) - o \cdot \sqrt{U^2 \cdot W \cdot l^2 \cdot n \cdot (W \cdot n + 6 \cdot X \cdot m) + U^2 \cdot X^2 \cdot l^2 \cdot m^2 + 4 \cdot V \cdot W \cdot X \cdot k \cdot m \cdot n \cdot (2 \cdot U \cdot l + V \cdot k)} \right]} = 0$$

4RST3AB4R0



$N_1 = 2.08954$
$N_2 = 1.45027$
$N_3 = 2.95630$
$N_4 = 0.95866$
$R = 0.33803$

Unit. $AB := 1$ Given. $N_1 := 2.08954$ $N_2 := 1.45027$ $N_3 := 2.95630$ $N_4 := .95866$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

$$AC := \frac{N_2}{N_1 + N_2} \qquad CN_4 := N_4 + AC \qquad BN_4 := \sqrt{N_4^2 + AB^2}$$

$$EN_4 := \frac{N_4 \cdot CN_4}{BN_4} \qquad BE := BN_4 - EN_4 \qquad BG := \frac{N_4 \cdot BE}{BN_4}$$

$$FG := \frac{AB \cdot (N_3 - BG)}{N_3} \qquad R := \frac{BG \cdot AB}{FG} \qquad R = 0.338032$$

Definitions.

$$R - \frac{N_3 \cdot N_4 \cdot (AC \cdot N_4 - 1)}{N_4 - N_3 - N_3 \cdot N_4^2 - AC \cdot N_4^2} = 0$$

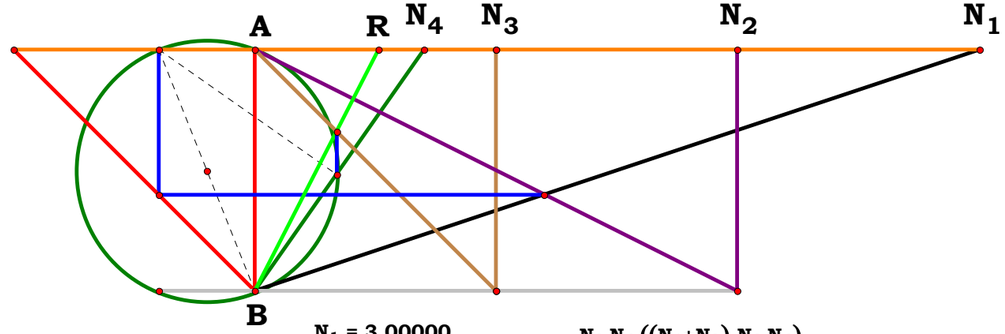
$$R - \frac{N_3 \cdot N_4 \cdot (N_1 + N_2 - N_2 \cdot N_4)}{N_4 \cdot (N_2 \cdot N_4 - N_2 - N_1) + N_3 \cdot (N_1 + N_2) \cdot (N_4^2 + 1)} = 0$$

$$N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0 \quad N_4 - \frac{N_u}{D} = 0$$

$$R - \frac{N_u \cdot [D \cdot (A + B) - A \cdot N_u]}{(D^2 - C \cdot D + N_u^2) \cdot (A + B) + A \cdot C \cdot N_u} = 0$$

$$N_1 - \frac{W}{m} = 0 \quad N_2 - \frac{X}{n} = 0 \quad N_3 - \frac{Y}{o} = 0 \quad N_4 - \frac{Z}{p} = 0$$

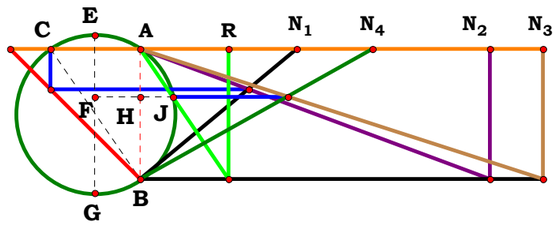
$$R - \frac{Y \cdot Z \cdot (W \cdot n \cdot p - X \cdot Z \cdot m + X \cdot m \cdot p)}{Z \cdot (Y \cdot Z - o \cdot p) \cdot (W \cdot n + X \cdot m) + Y \cdot p^2 \cdot (W \cdot n + X \cdot m) + X \cdot Z^2 \cdot m \cdot o} = 0$$



$N_1 = 3.00000$
$N_2 = 2.00000$
$N_3 = 1.00000$
$N_4 = 0.70000$
$R = 0.51116$

$$\frac{N_3 \cdot N_4 \cdot ((N_1 + N_2) - N_2 \cdot N_4)}{N_4 \cdot (N_2 \cdot N_4 - N_2 - N_1) + N_3 \cdot (N_1 + N_2) \cdot (N_4^2 + 1)} - R = 0.00000$$

4RST3AB4R1



$N_1 = 1.19844$
$N_2 = 2.68037$
$N_3 = 3.09190$
$N_4 = 1.78196$
$R = 0.67615$

Unit. $AB := 1$ Given. $N_1 := 1.19844$ $N_2 := 2.68037$ $N_3 := 3.09190$ $N_4 := 1.78196$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

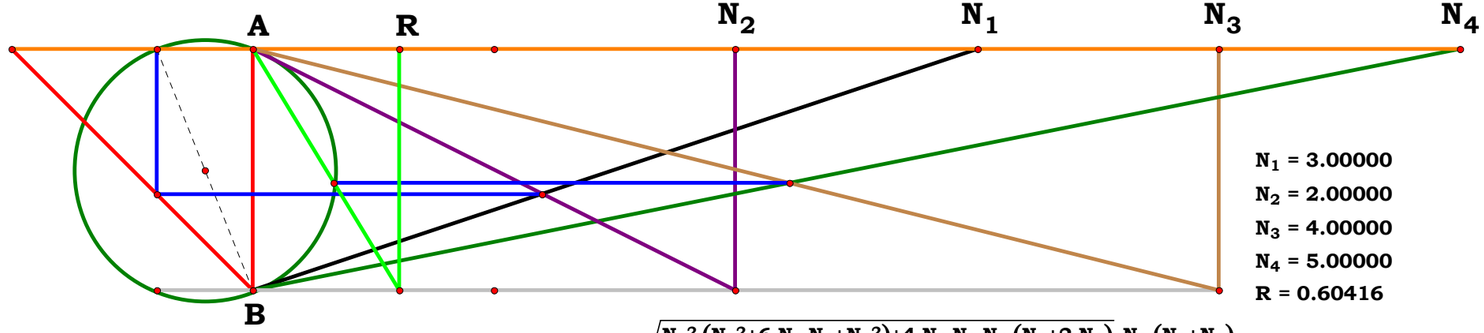
Descriptions.

$AC := \frac{N_2}{N_1 + N_2}$ $AH := \frac{AB \cdot N_4}{N_4 + N_3}$

$EG := \sqrt{AB^2 + AC^2}$ $EF := AH + \frac{(EG - AB)}{2}$

$FJ := \sqrt{EF \cdot (EG - EF)}$ $HJ := FJ - \frac{AC}{2}$

$AR := \frac{HJ \cdot AB}{AH}$ $AR = 0.676144$



$N_1 = 3.00000$
$N_2 = 2.00000$
$N_3 = 4.00000$
$N_4 = 5.00000$
$R = 0.60416$

$\frac{\sqrt{N_2^2 \cdot (N_3^2 + 6 \cdot N_3 \cdot N_4 + N_4^2) + 4 \cdot N_1 \cdot N_3 \cdot N_4 \cdot (N_1 + 2 \cdot N_2)} - N_2 \cdot (N_3 + N_4)}{2 \cdot N_4 \cdot (N_1 + N_2)} - R = 0.00000$

Definitions.

$$AR - \frac{\left[\sqrt{AC^2 \cdot N_3^2 + 2 \cdot AC^2 \cdot N_3 \cdot N_4 + AC^2 \cdot N_4^2 + 4 \cdot N_3 \cdot N_4} - AC \cdot \sqrt{(N_3 + N_4)^2}\right] \cdot (N_3 + N_4)}{2 \cdot N_4 \cdot \sqrt{(N_3 + N_4)^2}} = 0$$

$$AR - \frac{\sqrt{4 \cdot N_1 \cdot N_3 \cdot N_4 \cdot (N_1 + 2 \cdot N_2) + N_2^2 \cdot N_3 \cdot (N_3 + 6 \cdot N_4) + N_2^2 \cdot N_4^2} - N_2 \cdot (N_3 + N_4)}{2 \cdot (N_1 + N_2) \cdot N_4} = 0$$

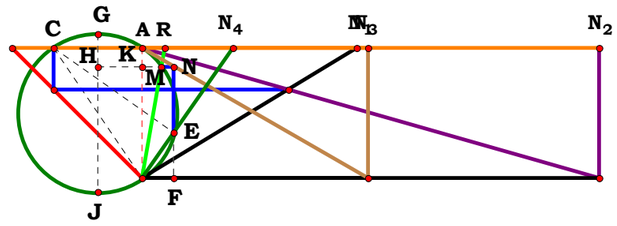
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$AR - \frac{\sqrt{A^2 \cdot C^2 + 6 \cdot A^2 \cdot C \cdot D + A^2 \cdot D^2 + 8 \cdot A \cdot B \cdot C \cdot D + 4 \cdot B^2 \cdot C \cdot D} - A \cdot (C + D)}{2 \cdot C \cdot (A + B)} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$AR - \frac{\sqrt{X^2 \cdot m^2 \cdot (Y^2 \cdot p^2 + Z^2 \cdot o^2) + 2 \cdot Y \cdot Z \cdot o \cdot p \cdot (2 \cdot W^2 \cdot n^2 + 4 \cdot W \cdot X \cdot m \cdot n + 3 \cdot X^2 \cdot m^2)} - X \cdot m \cdot (Y \cdot p + Z \cdot o)}{2 \cdot Z \cdot o \cdot (W \cdot n + X \cdot m)} = 0$$

4RST3AB4R2



$N_1 = 1.64399$
$N_2 = 3.50366$
$N_3 = 1.73589$
$N_4 = 0.69715$
$R = 0.17156$

Unit. $AB := 1$ Given. $N_1 := 1.64399$ $N_2 := 3.50366$ $N_3 := 1.73589$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $N_4 := .69715$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

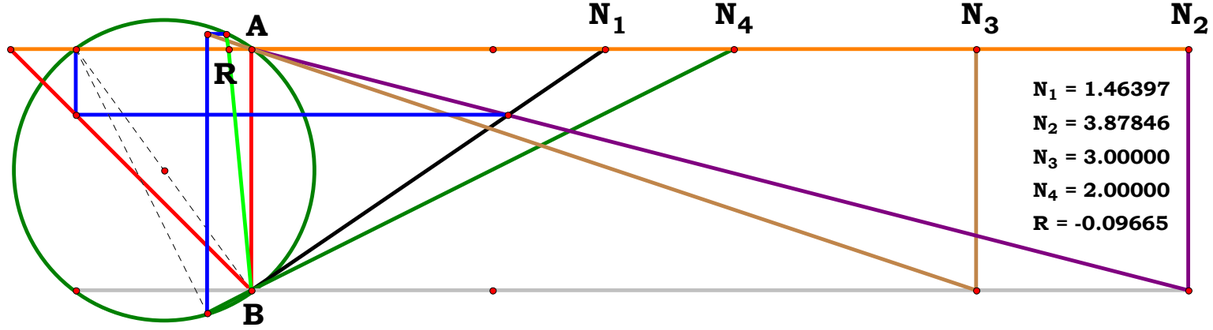
$AC := \frac{N_2}{N_1 + N_2}$ $CN_4 := N_4 + AC$ $BN_4 := \sqrt{N_4^2 + AB^2}$

$EN_4 := \frac{N_4 \cdot CN_4}{BN_4}$ $BF := \frac{N_4 \cdot (BN_4 - EN_4)}{BN_4}$ $AK := \frac{AB \cdot BF}{N_3}$

$GJ := \sqrt{AB^2 + AC^2}$ $GH := AK + \frac{GJ - AB}{2}$

$HM := \sqrt{GH \cdot (GJ - GH)}$ $KM := HM - \frac{AC}{2}$

$R := \frac{KM \cdot AB}{AB - AK}$ $R = 0.171558$



$N_1 = 1.46397$
$N_2 = 3.87846$
$N_3 = 3.00000$
$N_4 = 2.00000$
$R = -0.09665$

$$\frac{\sqrt{((N_2 \cdot N_3) \cdot (N_4^2+1))^2 - 4 \cdot N_4 \cdot (N_4 \cdot ((N_1+N_2) - N_2 \cdot N_4) - N_3 \cdot (N_1+N_2) \cdot (N_4^2+1)) \cdot ((N_1+N_2) - N_2 \cdot N_4)} - (N_2 \cdot N_3) \cdot (N_4^2+1)}{(2 \cdot (N_2 \cdot ((N_4^2 - N_4) + N_3) + N_1 \cdot (N_3 - N_4) + N_3 \cdot N_4^2 \cdot (N_1+N_2)))} - R = 0.00000$$

Definitions.

$$R - \frac{\sqrt{AC^2 \cdot N_3^2 - 4 \cdot N_4^2 - 4 \cdot AC \cdot N_4^3 \cdot (AC \cdot N_4 - 2) + 4 \cdot N_3 \cdot N_4 \cdot (N_4^2 + 1) - AC \cdot N_3 \cdot N_4^2 \cdot (4 \cdot N_4^2 - 2 \cdot AC \cdot N_3 - AC \cdot N_3 \cdot N_4^2 + 4)} - AC \cdot N_3 \cdot (N_4^2 + 1)}{2 \cdot (N_3 - N_4 + N_3 \cdot N_4^2 + AC \cdot N_4^2)} = 0$$

$$R - \frac{\sqrt{N_2^2 \cdot N_3^2 \cdot (N_4^2+1)^2 - 4 \cdot N_4 \cdot [N_4 \cdot (N_1 + N_2 - N_2 \cdot N_4) - N_3 \cdot (N_1+N_2) \cdot (N_4^2+1)] \cdot (N_1 + N_2 - N_2 \cdot N_4)} - N_2 \cdot N_3 \cdot (N_4^2+1)}{2 \cdot (N_2 \cdot N_4^2 + N_1 \cdot N_3 - N_1 \cdot N_4 + N_2 \cdot N_3 - N_2 \cdot N_4 + N_1 \cdot N_3 \cdot N_4^2 + N_2 \cdot N_3 \cdot N_4^2)} = 0$$

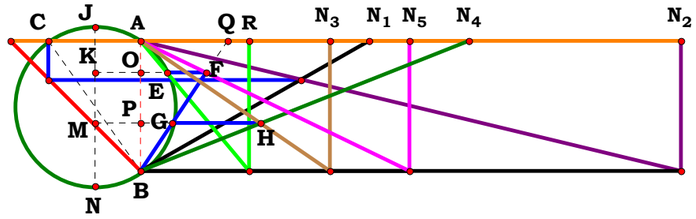
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{A \cdot (D^2 + N_u^2) - \sqrt{A^2 \cdot (D^2 + N_u^2)^2 + 4 \cdot C \cdot [D \cdot (A+B) - A \cdot N_u] \cdot [D^2 \cdot (A+B) - C \cdot [D \cdot (A+B) - A \cdot N_u] + N_u^2 \cdot (A+B)]}}{2 \cdot [C \cdot (A \cdot D + B \cdot D - A \cdot N_u) - (D^2 + N_u^2) \cdot (A+B)]} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{\sqrt{Y^2 \cdot X^2 \cdot m^2 \cdot (Z^2+p^2)^2 + 4 \cdot Y \cdot Z \cdot o \cdot (Z^2+p^2) \cdot (W \cdot n + X \cdot m) \cdot (W \cdot n \cdot p - X \cdot Z \cdot m + X \cdot m \cdot p) - 4 \cdot Z^2 \cdot o^2 \cdot (W \cdot n \cdot p - X \cdot Z \cdot m + X \cdot m \cdot p)^2} - X \cdot Y \cdot m \cdot (Z^2+p^2)}{2 \cdot (W \cdot Y \cdot Z^2 \cdot n + X \cdot Y \cdot Z^2 \cdot m + W \cdot Y \cdot n \cdot p^2 + X \cdot Y \cdot m \cdot p^2 + X \cdot Z^2 \cdot m \cdot o - W \cdot Z \cdot n \cdot o \cdot p - X \cdot Z \cdot m \cdot o \cdot p)} = 0$$

4RST3AB4R3



$N_1 = 1.75053$
$N_2 = 4.14292$
$N_3 = 1.45500$
$N_4 = 2.51808$
$N_5 = 2.06307$
R = 0.83282

Unit. $AB := 1$ **Given.** $N_1 := 1.75053$ $N_2 := 4.14292$ $N_3 := 1.45500$ $N_4 := 2.51808$ $N_5 := 2.06307$

Descriptions.

$$AC := \frac{N_2}{N_1 + N_2} \qquad BP := \frac{AB \cdot N_3}{N_3 + N_4}$$

$$JN := \sqrt{AB^2 + AC^2} \qquad JM := JN - \left(BP + \frac{JN - AB}{2}\right)$$

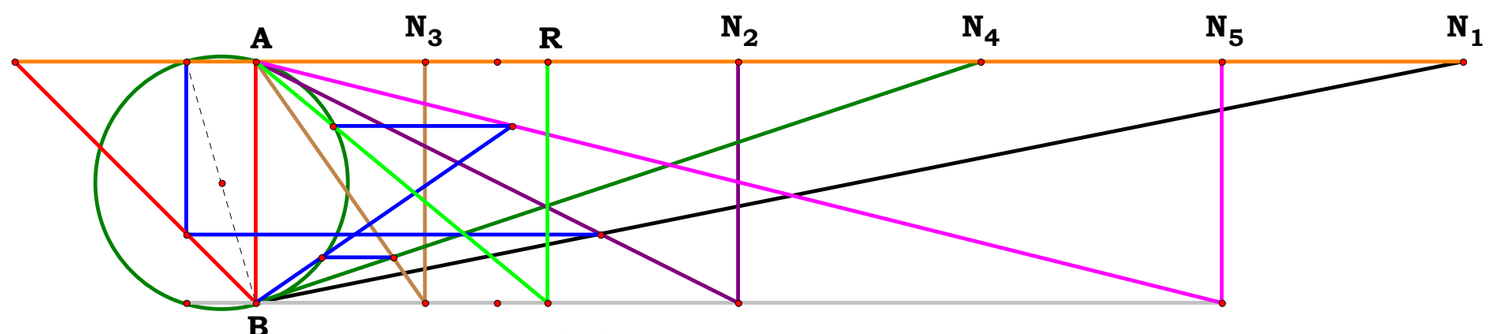
$$GM := \sqrt{JM \cdot (JN - JM)} \qquad PG := GM - \frac{AC}{2}$$

$$AQ := \frac{PG \cdot AB}{BP} \qquad AO := \frac{AB \cdot AQ}{AQ + N_5}$$

$$JK := AO + \frac{JN - AB}{2} \qquad EK := \sqrt{JK \cdot (JN - JK)}$$

$$EO := EK - \frac{AC}{2} \qquad AR := \frac{EO \cdot AB}{AO}$$

$AR = 0.832823$

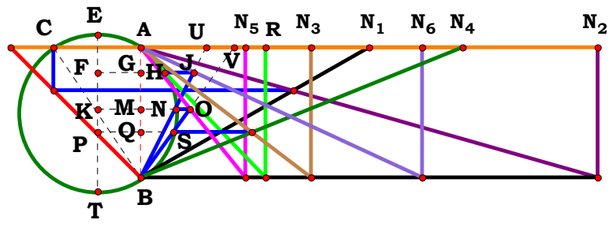


$N_1 = 5.00000$
$N_2 = 2.00000$
$N_3 = 0.70000$
$N_4 = 3.00000$
$N_5 = 4.00000$
R = 1.20913

AB = 1.00000
AC = 0.28571
BP = 0.18919
JN = 1.04002
JM = 0.83082
GM = 0.41690
PG = 0.27404

AQ = 1.44851
AO = 0.26585
JK = 0.28586
EK = 0.46431
EO = 0.32145
$R - \frac{EO \cdot AB}{AO} = 0.00000$

4RST3AB4R4



$N_1 = 1.75053$
$N_2 = 3.50366$
$N_3 = 1.30972$
$N_4 = 2.46965$

$N_5 = 0.80392$
$N_6 = 2.15993$
$R = 0.95638$

Unit. $AB := 1$ Given. $N_1 := 1.75053$ $N_2 := 3.50366$ $N_3 := 1.30972$ $N_4 := 2.46965$ $N_5 := .80392$ $N_6 := 2.15993$

Descriptions.

$$AC := \frac{N_2}{N_1 + N_2} \qquad BQ := \frac{AB \cdot N_3}{N_3 + N_4}$$

$$ET := \sqrt{AB^2 + AC^2} \qquad EP := ET - \left(BQ + \frac{ET - AB}{2}\right)$$

$$PS := \sqrt{EP \cdot (ET - EP)} \qquad QS := PS - \frac{AC}{2}$$

$$AV := \frac{QS \cdot AB}{BQ}$$

$$BM := \frac{AB \cdot N_5}{AV + N_5}$$

$$KT := BM + \frac{ET - AB}{2}$$

$$KN := \sqrt{KT \cdot (ET - KT)}$$

$$MN := KN - \frac{AC}{2}$$

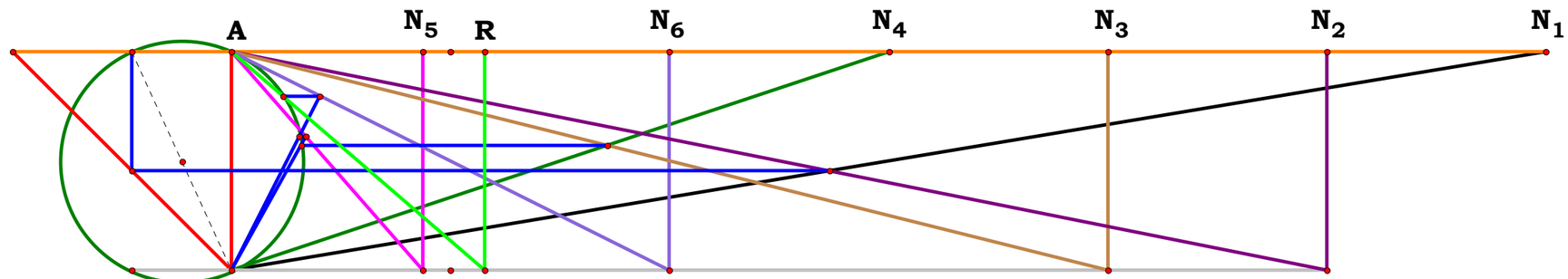
$$AU := \frac{MN \cdot AB}{BM}$$

$$BG := \frac{AB \cdot N_6}{AU + N_6} \qquad AG := AB - BG$$

$$EF := AG + \frac{ET - AB}{2} \qquad FH := \sqrt{EF \cdot (ET - EF)}$$

$$GH := FH - \frac{AC}{2} \qquad AR := \frac{GH \cdot AB}{AG}$$

$AR = 0.956384$



$N_1 = 6.00000$
$N_2 = 5.00000$
$N_3 = 4.00000$
$N_4 = 3.00000$
$N_5 = 0.87451$
$N_6 = 2.00000$
$R = 1.15772$

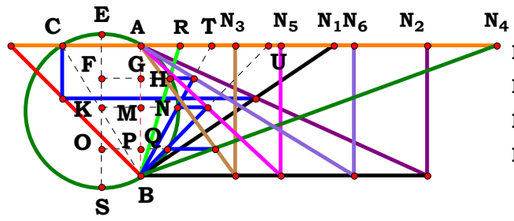
$AB = 1.00000$
$AC = 0.45455$
$BQ = 0.57143$
$ET = 1.09846$
$EP = 0.47780$
$PS = 0.54456$
$QS = 0.31729$

$AV = 0.55526$
$BM = 0.61164$
$KT = 0.66087$
$KN = 0.53776$
$MN = 0.31049$
$AU = 0.50763$
$BG = 0.79756$

$AG = 0.20244$
$EF = 0.25166$
$FH = 0.46164$
$GH = 0.23436$
$R - \frac{GH \cdot AB}{AG} = 0.00000$

Definitions.

4RST3AB4R5



$N_1 = 1.47933$ $N_5 = 1.07512$
$N_2 = 2.19608$ $N_6 = 1.63690$
$N_3 = 0.72857$ $R = 0.30175$
$N_4 = 2.73116$

Unit. $AB := 1$ **Given.** $N_1 := 1.47933$ $N_2 := 2.19608$ $N_3 := .72857$

$N_4 := 2.73116$ $N_5 := 1.07512$ $N_6 := 1.63690$

Descriptions.

$$AC := \frac{N_2}{N_1 + N_2} \qquad BP := \frac{AB \cdot N_3}{N_3 + N_4}$$

$$ES := \sqrt{AB^2 + AC^2} \qquad OS := BP + \frac{ES - AB}{2}$$

$$OQ := \sqrt{OS \cdot (ES - OS)} \qquad PQ := OQ - \frac{AC}{2}$$

$$AU := \frac{PQ \cdot AB}{BP}$$

$$BM := \frac{AB \cdot N_5}{N_5 + AU}$$

$$KS := BM + \frac{ES - AB}{2}$$

$$KN := \sqrt{KS \cdot (ES - KS)}$$

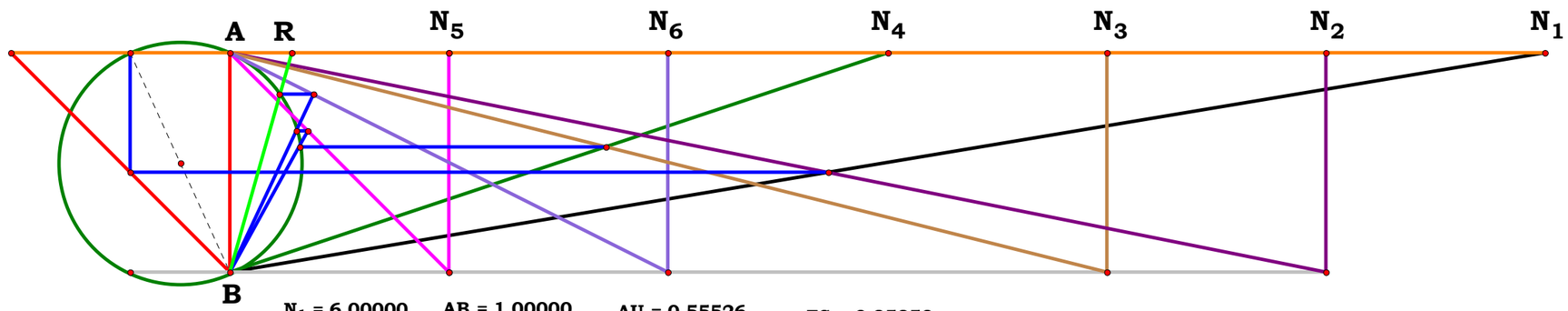
$$MN := KN - \frac{AC}{2}$$

$$AT := \frac{MN \cdot AB}{BM}$$

$$BG := \frac{N_6 \cdot AB}{N_6 + AT} \qquad FS := BG + \frac{ES - AB}{2}$$

$$FH := \sqrt{FS \cdot (ES - FS)} \qquad GH := FH - \frac{AC}{2}$$

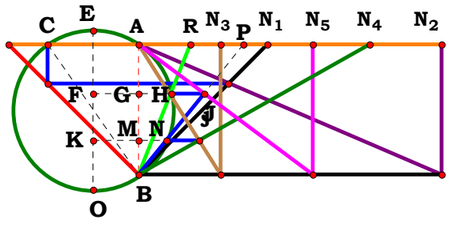
$$AR := \frac{GH \cdot AB}{BG} \qquad AR = 0.301751$$



$N_1 = 6.00000$ $AB = 1.00000$ $AU = 0.55526$ $FS = 0.85853$
$N_2 = 5.00000$ $AC = 0.45455$ $BM = 0.64298$ $FH = 0.45386$
$N_3 = 4.00000$ $BP = 0.57143$ $KS = 0.69221$ $GH = 0.22659$
$N_4 = 3.00000$ $ES = 1.09846$ $KN = 0.53029$ $R - \frac{GH \cdot AB}{BG} = 0.00000$
$N_5 = 1.00000$ $OS = 0.62066$ $MN = 0.30302$
$N_6 = 2.00000$ $OQ = 0.54456$ $AT = 0.47127$
$R = 0.27998$ $PQ = 0.31729$ $BG = 0.80930$

Definitions.

4RST3AB4R6



$N_1 = 0.98536$
$N_2 = 2.32200$
$N_3 = 0.63171$
$N_4 = 1.77227$
$N_5 = 1.33664$
$R = 0.39643$

Unit. $AB := 1$ **Given.** $N_1 := .98536$ $N_2 := 2.3220$ $N_3 := .63171$ $N_4 := 1.77227$ $N_5 := 1.33664$

Descriptions.

$$AC := \frac{N_2}{N_1 + N_2} \qquad BM := \frac{N_3 \cdot AB}{N_3 + N_4}$$

$$EO := \sqrt{AB^2 + AC^2} \qquad KO := BM + \frac{EO - AB}{2}$$

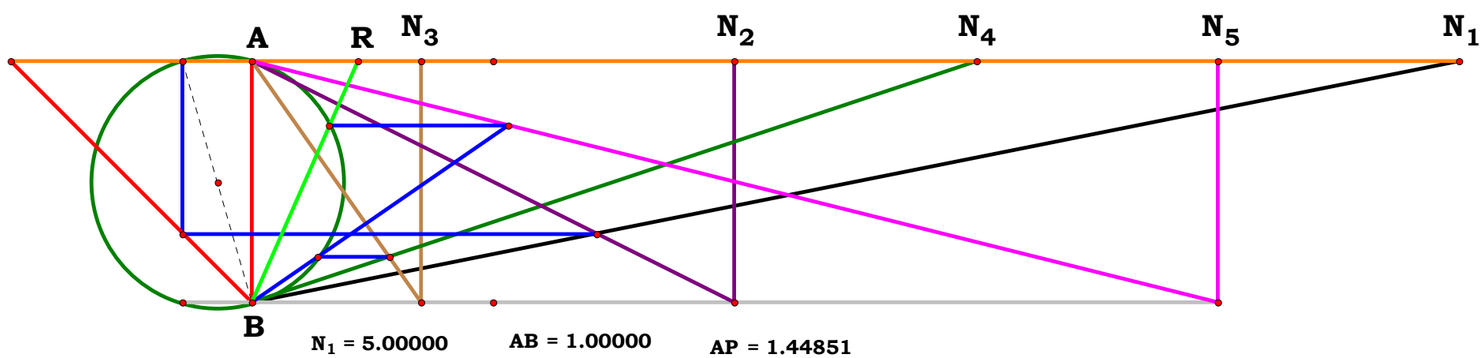
$$KN := \sqrt{KO \cdot (EO - KO)} \qquad MN := KN - \frac{AC}{2}$$

$$AP := \frac{MN \cdot AB}{BM} \qquad BG := \frac{N_5 \cdot AB}{AP + N_5}$$

$$FO := BG + \frac{EO - AB}{2} \qquad FH := \sqrt{FO \cdot (EO - FO)}$$

$$GH := FH - \frac{AC}{2} \qquad AR := \frac{GH \cdot AB}{BG}$$

$AR = 0.396433$



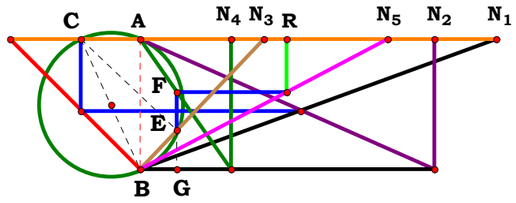
$N_1 = 5.00000$
$N_2 = 2.00000$
$N_3 = 0.70000$
$N_4 = 3.00000$
$N_5 = 4.00000$
$R = 0.43786$

$AB = 1.00000$
$AC = 0.28571$
$BM = 0.18919$
$EO = 1.04002$
$KO = 0.20920$
$KN = 0.41690$
$MN = 0.27404$

$AP = 1.44851$
$BG = 0.73415$
$FO = 0.75415$
$FH = 0.46431$
$GH = 0.32145$
$R - \frac{GH \cdot AB}{BG} = 0.00000$

Definitions.

4RST3AB4R7



$N_1 = 2.72880$
$N_2 = 2.25419$
$N_3 = 0.95134$
$N_4 = 0.69715$
$N_5 = 1.89841$
$R = 1.12379$

Unit. $AB := 1$ Given. $N_1 := 2.72880$ $N_2 := 2.25419$ $N_3 := .95134$ $N_4 := .69715$ $N_5 := 1.89841$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$

$V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $l := \frac{V}{N_1}$ $m := \frac{W}{N_2}$ $n := \frac{X}{N_3}$ $o := \frac{Y}{N_4}$ $p := \frac{Z}{N_5}$

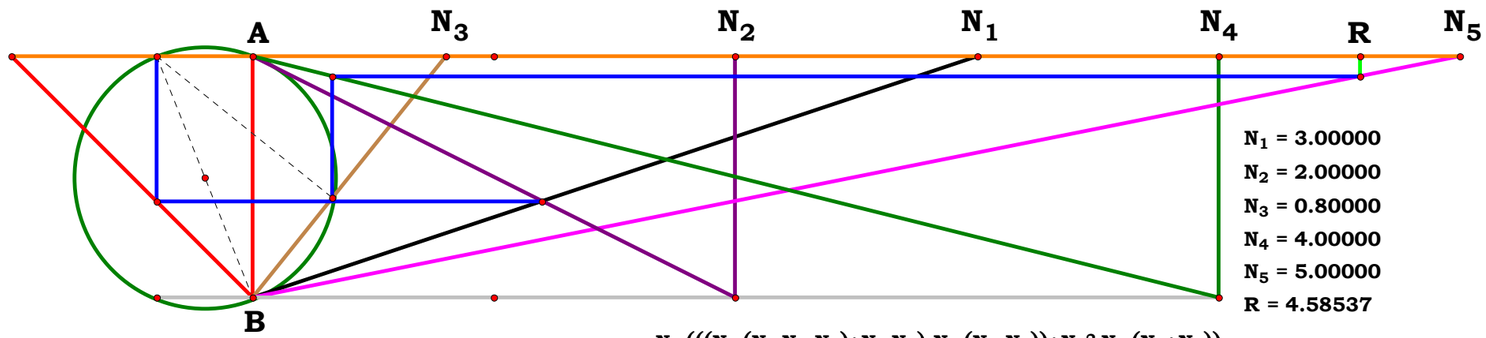
Descriptions.

$$AC := \frac{N_2}{N_1 + N_2} \qquad CN_3 := N_3 + AC$$

$$BN_3 := \sqrt{N_3^{\,2} + AB^2} \qquad EN_3 := \frac{N_3 \cdot CN_3}{BN_3}$$

$$BG := \frac{N_3 \cdot (BN_3 - EN_3)}{BN_3} \qquad FG := \frac{AB \cdot (N_4 - BG)}{N_4}$$

$$R := \frac{N_5 \cdot FG}{AB} \qquad R = 1.123786$$



$N_1 = 3.00000$
$N_2 = 2.00000$
$N_3 = 0.80000$
$N_4 = 4.00000$
$N_5 = 5.00000$
$R = 4.58537$

$N_5 \cdot (((N_3 \cdot (N_2 \cdot N_3 - N_1) + N_1 \cdot N_4) - N_2 \cdot (N_3 - N_4)) + N_3^2 \cdot N_4 \cdot (N_1 + N_2))$

$$\frac{N_5 \cdot (((N_3 \cdot (N_2 \cdot N_3 - N_1) + N_1 \cdot N_4) - N_2 \cdot (N_3 - N_4)) + N_3^2 \cdot N_4 \cdot (N_1 + N_2))}{N_4 \cdot (N_1 + N_2) \cdot (N_3^2 + 1)} - R = 0.00000$$

Definitions.

$$R - \frac{N_5 \cdot \left(N_4 - N_3 + N_3^{\,2} \cdot N_4 + AC \cdot N_3^{\,2}\right)}{N_4 \cdot \left(N_3^{\,2} + 1\right)} = 0$$

$$R - \frac{N_5 \cdot \left[N_3 \cdot \left(N_2 \cdot N_3 - N_1\right) + N_1 \cdot N_4 - N_2 \cdot \left(N_3 - N_4\right) + N_3^{\,2} \cdot N_4 \cdot \left(N_1 + N_2\right)\right]}{N_4 \cdot \left(N_1 + N_2\right) \cdot \left(N_3^{\,2} + 1\right)} = 0$$

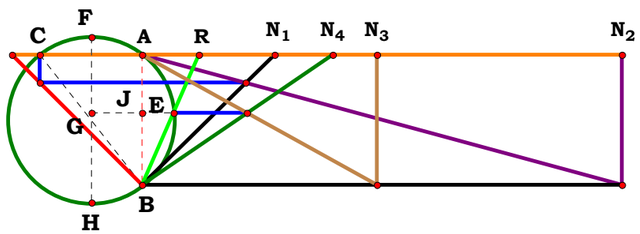
$$N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0 \quad N_4 - \frac{N_u}{D} = 0 \quad N_5 - \frac{N_u}{E} = 0$$

$$R - \frac{\left[N_u \cdot \left(C^2 - D \cdot C + N_u^{\,2}\right)\right] \cdot (A + B) + A \cdot D \cdot N_u^{\,2}}{E \cdot \left(C^2 + N_u^{\,2}\right) \cdot (A + B)} = 0$$

$$N_1 - \frac{V}{l} = 0 \quad N_2 - \frac{W}{m} = 0 \quad N_3 - \frac{X}{n} = 0 \quad N_4 - \frac{Y}{o} = 0 \quad N_5 - \frac{Z}{p} = 0$$

$$R - \frac{Z \cdot \left(Y \cdot X^2 - o \cdot X \cdot n + Y \cdot n^2\right) \cdot (V \cdot m + W \cdot l) + W \cdot X^2 \cdot Z \cdot l \cdot o}{Y \cdot p \cdot (V \cdot m + W \cdot l) \cdot \left(X^2 + n^2\right)} = 0$$

4RST3AB4R8



$N_1 = 1.01441$
$N_2 = 3.67800$
$N_3 = 1.80369$
$N_4 = 1.46232$
$R = 0.43680$

Unit. $AB := 1$ Given. $N_1 := 1.01441$ $N_2 := 3.67800$ $N_3 := 1.8036$ $N_4 := 1.46232$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

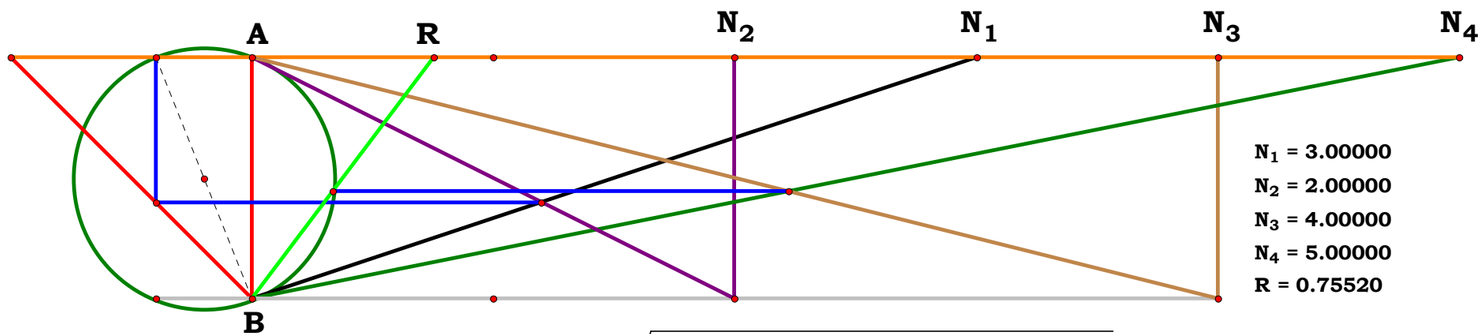
Descriptions.

$$AC := \frac{N_2}{N_1 + N_2} \qquad BJ := \frac{AB \cdot N_3}{N_3 + N_4}$$

$$FH := \sqrt{AB^2 + AC^2} \qquad GH := BJ + \frac{FH - AB}{2}$$

$$GE := \sqrt{GH \cdot (FH - GH)} \qquad JE := GE - \frac{AC}{2}$$

$$R := \frac{JE \cdot AB}{BJ} \qquad R = 0.436811$$



$N_1 = 3.00000$
$N_2 = 2.00000$
$N_3 = 4.00000$
$N_4 = 5.00000$
$R = 0.75520$

$$\frac{\sqrt{N_2^2 \cdot (N_3^2 + N_4^2) + 2 \cdot N_3 \cdot N_4 \cdot (2 \cdot N_1^2 + 4 \cdot N_1 \cdot N_2 + 3 \cdot N_2^2)} - N_2 \cdot (N_3 + N_4)}{2 \cdot N_3 \cdot (N_1 + N_2)} - R = 0.00000$$

Definitions.

$$R - \frac{\left[\sqrt{AC^2 \cdot N_3^2 + 2 \cdot AC^2 \cdot N_3 \cdot N_4 + AC^2 \cdot N_4^2 + 4 \cdot N_3 \cdot N_4} - AC \cdot \sqrt{(N_3 + N_4)^2}\right] \cdot (N_3 + N_4)}{2 \cdot N_3 \cdot \sqrt{(N_3 + N_4)^2}} = 0$$

$$R - \frac{\sqrt{N_2^2 \cdot (N_3^2 + N_4^2) + 2 \cdot N_3 \cdot N_4 \cdot (2 \cdot N_1^2 + 4 \cdot N_1 \cdot N_2 + 3 \cdot N_2^2)} - N_2 \cdot (N_3 + N_4)}{2 \cdot (N_1 + N_2) \cdot N_3} = 0$$

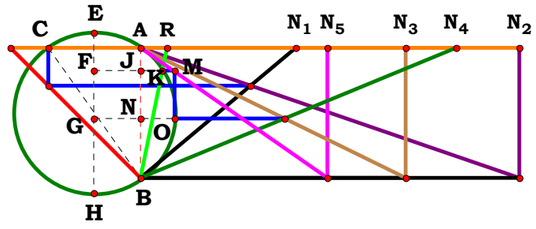
$$N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0 \quad N_4 - \frac{N_u}{D} = 0$$

$$R - \frac{\sqrt{A^2 \cdot (C^2 + D^2) + 2 \cdot C \cdot D \cdot (3 \cdot A^2 + 4 \cdot A \cdot B + 2 \cdot B^2)} - A \cdot (C + D)}{2 \cdot D \cdot (A + B)} = 0$$

$$N_1 - \frac{W}{m} = 0 \quad N_2 - \frac{X}{n} = 0 \quad N_3 - \frac{Y}{o} = 0 \quad N_4 - \frac{Z}{p} = 0$$

$$R - \frac{\sqrt{X^2 \cdot m^2 \cdot (Y^2 \cdot p^2 + Z^2 \cdot o^2) + 2 \cdot Y \cdot Z \cdot o \cdot p \cdot (2 \cdot W^2 \cdot n^2 + 4 \cdot W \cdot X \cdot m \cdot n + 3 \cdot X^2 \cdot m^2)} - X \cdot m \cdot (Y \cdot p + Z \cdot o)}{2 \cdot Y \cdot p \cdot (W \cdot n + X \cdot m)} = 0$$

4RST3AB4R9



$N_1 = 1.18876$
$N_2 = 2.90314$
$N_3 = 2.03615$
$N_4 = 2.42122$
$N_5 = 1.43350$
$R = 0.20423$

Unit. $AB := 1$ Given. $N_1 := 1.18876$ $N_2 := 2.90314$ $N_3 := 2.03615$ $N_4 := 2.42122$ $N_5 := 1.4335$

Descriptions.

$$AC := \frac{N_2}{N_1 + N_2} \qquad EH := \sqrt{AB^2 + AC^2}$$

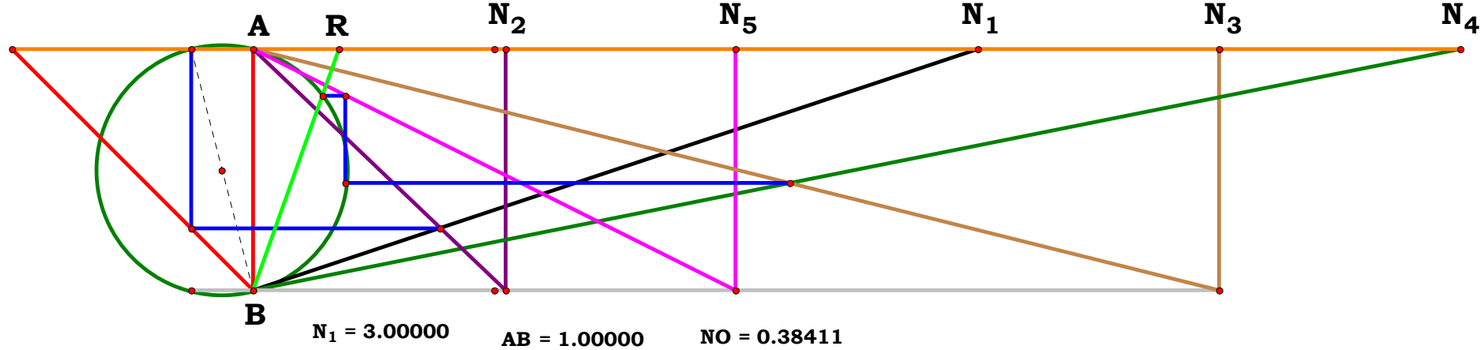
$$BN := \frac{AB \cdot N_3}{N_3 + N_4} \qquad GH := BN + \frac{EH - AB}{2}$$

$$GO := \sqrt{GH \cdot (EH - GH)} \qquad NO := GO - \frac{AC}{2}$$

$$BK := \frac{AB \cdot (N_5 - NO)}{N_5} \qquad FH := BK + \frac{EH - AB}{2}$$

$$FK := \sqrt{FH \cdot (EH - FH)} \qquad JK := FK - \frac{AC}{2}$$

$$AR := \frac{JK \cdot AB}{BK} \qquad AR = 0.204231$$



$N_1 = 3.00000$
$N_2 = 1.04706$
$N_3 = 4.00000$
$N_4 = 5.00000$
$N_5 = 2.00000$
$R = 0.35306$

$AB = 1.00000$
$AC = 0.25872$
$EH = 1.03293$
$BN = 0.44444$
$GH = 0.46091$
$GO = 0.51347$

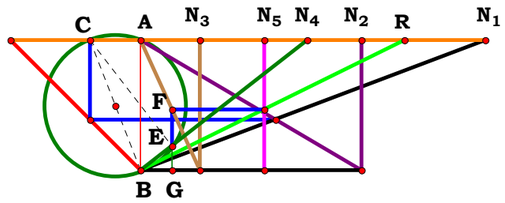
$NO = 0.38411$
$BK = 0.80795$
$FH = 0.82441$
$FK = 0.41461$
$JK = 0.28525$
$R - \frac{JK \cdot AB}{BK} = 0.00000$

Definitions.

$$AR - \frac{N_5 \cdot \sqrt{(N_3 + N_4)^2} \cdot \left[\sqrt{(N_3 + N_4) \cdot \left[2 \cdot \sqrt{AC^2 \cdot (N_3 + N_4)^2 + 4 \cdot N_3 \cdot N_4} \cdot \sqrt{(N_3 + N_4)^2} \cdot (AC + N_5) + 4 \cdot N_3^2 \ \ldots \right.} \right.}{\sqrt{N_5^2 \cdot (N_3 + N_4)^3} \cdot \left[AC \cdot \sqrt{(N_3 + N_4)^2} - \sqrt{AC^2 \cdot (N_3 + N_4)^2 + 4 \cdot N_3 \cdot N_4} + 2 \cdot N_5 \cdot \sqrt{(N_3 + N_4)^2} \right]}$$
$$\left. \left. + (N_3 + N_4) \cdot \left[(N_3 + N_4) \cdot \left[AC^2 \cdot (N_5^2 - 2) - 2 \cdot AC \cdot N_5 \right] - 4 \cdot N_3 \right] \right] - AC \cdot \sqrt{N_5^2 \cdot (N_3 + N_4)^3} \right] = 0$$

$$AR - \frac{N_5 \cdot \sqrt{(N_3 + N_4)^2} \cdot \left[\sqrt{(N_3 + N_4) \cdot \left[2 \cdot \sqrt{\left(\frac{N_2}{N_1 + N_2} \right)^2 \cdot (N_3 + N_4)^2 + 4 \cdot N_3 \cdot N_4} \cdot \sqrt{(N_3 + N_4)^2} \cdot \left[\left(\frac{N_2}{N_1 + N_2} \right) + N_5 \right] + 4 \cdot N_3^2 \ \ldots \right.} \right.}{\sqrt{N_5^2 \cdot (N_3 + N_4)^3} \cdot \left[\left(\frac{N_2}{N_1 + N_2} \right) \cdot \sqrt{(N_3 + N_4)^2} - \sqrt{\left(\frac{N_2}{N_1 + N_2} \right)^2 \cdot (N_3 + N_4)^2 + 4 \cdot N_3 \cdot N_4} + 2 \cdot N_5 \cdot \sqrt{(N_3 + N_4)^2} \right]}$$
$$\left. \left. + (N_3 + N_4) \cdot \left[(N_3 + N_4) \cdot \left[\left(\frac{N_2}{N_1 + N_2} \right)^2 \cdot (N_5^2 - 2) - 2 \cdot \left(\frac{N_2}{N_1 + N_2} \right) \cdot N_5 \right] - 4 \cdot N_3 \right] \right] - \left(\frac{N_2}{N_1 + N_2} \right) \cdot \sqrt{N_5^2 \cdot (N_3 + N_4)^3} \right] = 0$$

4RST3AB4R10



$N_1 = 2.64163$
$N_2 = 1.69242$
$N_3 = 0.45737$
$N_4 = 1.27829$
$N_5 = 0.94921$
$R = 2.02571$

Unit. $AB := 1$ Given. $N_1 := 2.64163$ $N_2 := 1.69242$ $N_3 := .45737$ $N_4 := 1.27829$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $N_5 := .94921$

$V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $l := \frac{V}{N_1}$ $m := \frac{W}{N_2}$ $n := \frac{X}{N_3}$ $o := \frac{Y}{N_4}$ $p := \frac{Z}{N_5}$

Descriptions.

$$AC := \frac{N_2}{N_1 + N_2} \qquad CN_4 := N_4 + AC \qquad BN_4 := \sqrt{N_4^2 + AB^2}$$

$$EN_4 := \frac{N_4 \cdot CN_4}{BN_4} \qquad BG := N_4 \cdot \frac{(BN_4 - EN_4)}{BN_4}$$

$$FG := AB \cdot \frac{(N_3 - BG)}{N_3} \qquad R := \frac{N_5 \cdot AB}{FG} \qquad R = 2.025711$$

Definitions.

$$R - \frac{N_3 \cdot N_5 \cdot (N_4^2 + 1)}{N_3 - N_4 + N_3 \cdot N_4^2 + AC \cdot N_4^2} = 0$$

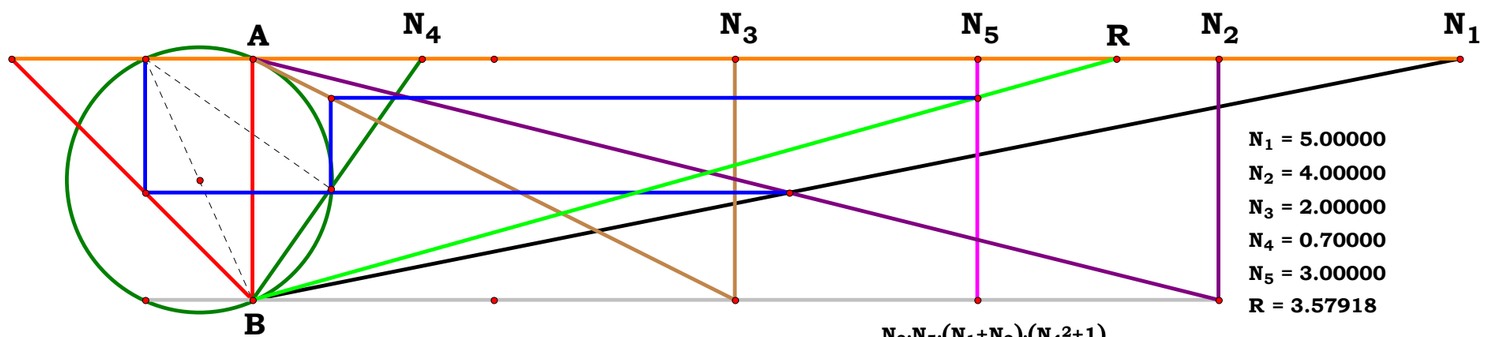
$$R - \frac{N_3 \cdot N_5 \cdot (N_1 + N_2) \cdot (N_4^2 + 1)}{(N_3 - N_4 + N_3 \cdot N_4^2 + N_4^2) \cdot N_2 + N_1 \cdot (N_3 \cdot N_4^2 - N_4 + N_3)} = 0$$

$$N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0 \quad N_4 - \frac{N_u}{D} = 0 \quad N_5 - \frac{N_u}{E} = 0$$

$$R - \frac{N_u \cdot (D^2 + N_u^2) \cdot (A + B)}{E \cdot [(A + B) \cdot N_u^2 + A \cdot C \cdot N_u + -D \cdot (C - D) \cdot (A + B)]} = 0$$

$$N_1 - \frac{V}{l} = 0 \quad N_2 - \frac{W}{m} = 0 \quad N_3 - \frac{X}{n} = 0 \quad N_4 - \frac{Y}{o} = 0 \quad N_5 - \frac{Z}{p} = 0$$

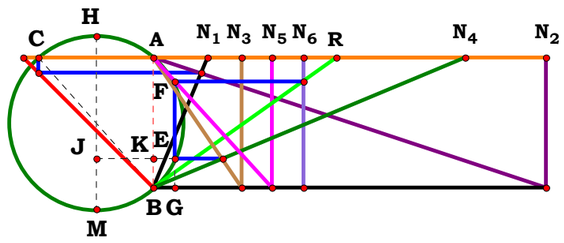
$$R - \frac{X \cdot Z \cdot (V \cdot m + W \cdot l) \cdot (Y^2 + o^2)}{p \cdot [X \cdot (Y^2 + o^2) \cdot (V \cdot m + W \cdot l) + Y \cdot n \cdot (W \cdot Y \cdot l - V \cdot m \cdot o - W \cdot l \cdot o)]} = 0$$



$N_1 = 5.00000$
$N_2 = 4.00000$
$N_3 = 2.00000$
$N_4 = 0.70000$
$N_5 = 3.00000$
$R = 3.57918$

$$\frac{N_3 \cdot N_5 \cdot (N_1 + N_2) \cdot (N_4^2 + 1)}{N_2 \cdot ((N_3 - N_4) + N_3 \cdot N_4^2 + N_4^2) + N_1 \cdot ((N_3 \cdot N_4^2 - N_4) + N_3)} - R = 0.00000$$

4RST3AB4R11



$N_1 = 0.41390$
$N_2 = 3.00969$
$N_3 = 0.68014$
$N_4 = 2.39216$
$N_5 = 0.91046$
$N_6 = 1.15261$
$R = 1.40787$

Unit. $AB := 1$ Given. $N_1 := .41390$ $N_2 := 3.00969$ $N_3 := .68014$

$N_4 := 2.39216$ $N_5 := .91046$ $N_6 := 1.15261$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $F := \frac{N_u}{N_6}$

$U := 18$ $V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $k := \frac{U}{N_1}$ $l := \frac{V}{N_2}$ $m := \frac{W}{N_3}$ $n := \frac{X}{N_4}$ $o := \frac{Y}{N_5}$ $p := \frac{Z}{N_6}$

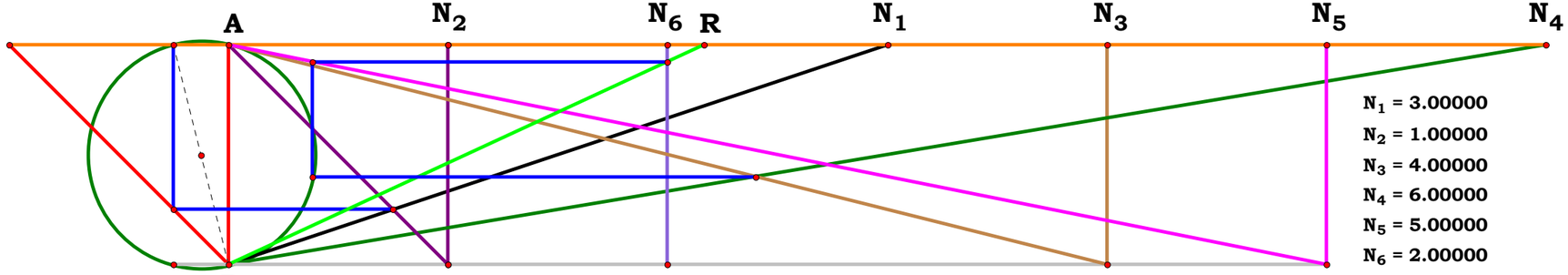
Descriptions.

$$AC := \frac{N_2}{N_1 + N_2} \qquad EG := \frac{N_3 \cdot AB}{N_3 + N_4} \qquad HM := \sqrt{AB^2 + AC^2} \qquad JM := EG - \frac{AB}{2} + \frac{HM}{2}$$

$$JE := \sqrt{JM \cdot (HM - JM)}$$

$$BG := JE - \frac{AC}{2} \qquad FG := \frac{AB \cdot (N_5 - BG)}{N_5}$$

$$R := \frac{N_6 \cdot AB}{FG} \qquad R = 1.407873$$



$N_1 = 3.00000$
$N_2 = 1.00000$
$N_3 = 4.00000$
$N_4 = 6.00000$
$N_5 = 5.00000$
$N_6 = 2.00000$
$R = 2.16478$

Definitions.

B

$$R - \frac{2 \cdot N_5 \cdot N_6 \cdot \sqrt{(N_3 + N_4)^2}}{\sqrt{(N_3 + N_4)^2} \cdot (AC + 2 \cdot N_5) - \sqrt{AC^2 \cdot (N_3 + N_4)^2 + 4 \cdot N_3 \cdot N_4}} = 0$$

$$\frac{2 \cdot N_5 \cdot N_6 \cdot ((N_1 + N_2) \cdot (N_3 + N_4))}{(N_2 \cdot (N_3 + N_4) + 2 \cdot N_5 \cdot (N_3 + N_4) \cdot (N_1 + N_2)) - \sqrt{N_2^2 \cdot (N_3^2 + N_4^2) + 2 \cdot N_3 \cdot N_4 \cdot (2 \cdot N_1^2 + 4 \cdot N_1 \cdot N_2 + 3 \cdot N_2^2)}} - R = 0.00000$$

$$R - \frac{2 \cdot N_5 \cdot N_6 \cdot (N_1 + N_2) \cdot (N_3 + N_4)}{(N_3 + N_4) \cdot (N_2 + 2 \cdot N_1 \cdot N_5 + 2 \cdot N_2 \cdot N_5) - \sqrt{N_2^2 \cdot (N_3^2 + N_4^2) + 2 \cdot N_3 \cdot N_4 \cdot (2 \cdot N_1^2 + 4 \cdot N_1 \cdot N_2 + 3 \cdot N_2^2)}} = 0$$

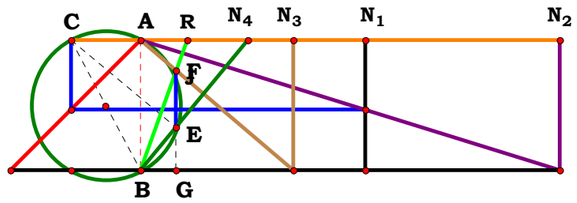
$$N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0 \quad N_4 - \frac{N_u}{D} = 0 \quad N_5 - \frac{N_u}{E} = 0 \quad N_6 - \frac{N_u}{F} = 0$$

$$R - \frac{2 \cdot N_u^2 \cdot (A + B) \cdot (C + D)}{F \cdot \left[(C + D) \cdot \left[A \cdot E + 2 \cdot N_u \cdot (A + B) \right] - E \cdot \sqrt{A^2 \cdot (C^2 + D^2) + 2 \cdot C \cdot D \cdot (3 \cdot A^2 + 4 \cdot A \cdot B + 2 \cdot B^2)} \right]} = 0$$

$$N_1 - \frac{U}{k} = 0 \quad N_2 - \frac{V}{l} = 0 \quad N_3 - \frac{W}{m} = 0 \quad N_4 - \frac{X}{n} = 0 \quad N_5 - \frac{Y}{o} = 0 \quad N_6 - \frac{Z}{p} = 0$$

$$R - \frac{2 \cdot Y \cdot Z \cdot (U \cdot l + V \cdot k) \cdot (W \cdot n + X \cdot m)}{p \cdot \left[(W \cdot n + X \cdot m) \cdot (2 \cdot U \cdot Y \cdot l + 2 \cdot V \cdot Y \cdot k + V \cdot k \cdot o) - o \cdot \sqrt{V^2 \cdot k^2 \cdot (W^2 \cdot n^2 + X^2 \cdot m^2) + 2 \cdot X \cdot W \cdot m \cdot n \cdot (2 \cdot U^2 \cdot l^2 + 4 \cdot U \cdot V \cdot k \cdot l + 3 \cdot V^2 \cdot k^2)} \right]} = 0$$

4RST3AB5R0



$N_1 = 1.72148$
$N_2 = 3.21309$
$N_3 = 1.17412$
$N_4 = 0.82306$
$R = 0.35791$

Unit. $AB := 1$ Given. $N_1 := 1.72148$ $N_2 := 3.21309$ $N_3 := 1.17412$ $N_4 := .82306$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

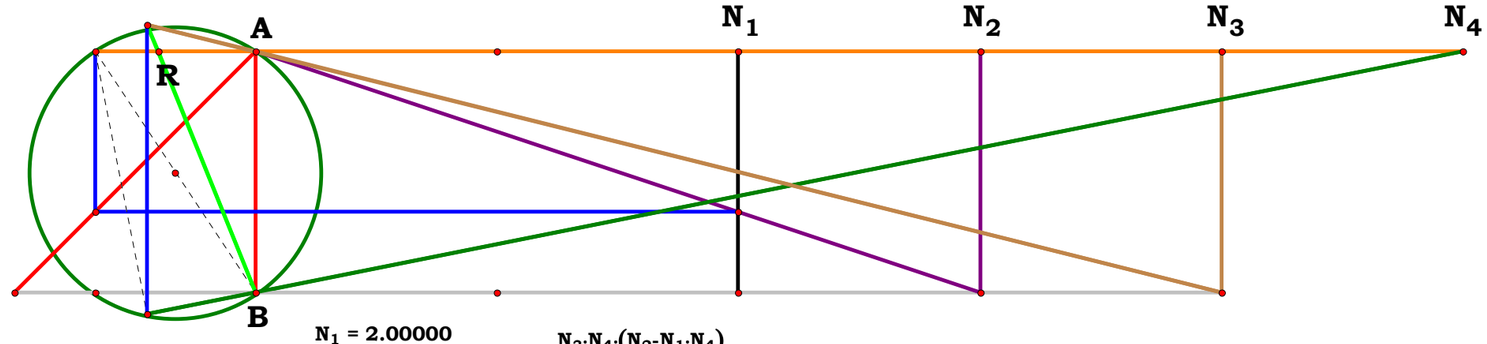
$AC := \frac{N_1}{N_2}$ $CN_4 := N_4 + AC$

$BN_4 := \sqrt{N_4^2 + AB^2}$ $EN_4 := \frac{N_4 \cdot CN_4}{BN_4}$

$BE := BN_4 - EN_4$ $BG := \frac{N_4 \cdot BE}{BN_4}$

$FG := \frac{AB \cdot (N_3 - BG)}{N_3}$ $R := \frac{BG \cdot AB}{FG}$

$R = 0.357913$



$N_1 = 2.00000$
$N_2 = 3.00000$
$N_3 = 4.00000$
$N_4 = 5.00000$
$R = -0.40346$

$\frac{N_3 \cdot N_4 \cdot (N_2 - N_1 \cdot N_4)}{N_1 \cdot N_4^2 + N_2 \cdot ((N_3 \cdot N_4^2 - N_4) + N_3)} - R = 0.00000$

Definitions.

$$R - \frac{N_3 \cdot N_4 \cdot (AC \cdot N_4 - 1)}{N_4 - N_3 - N_3 \cdot N_4^2 - AC \cdot N_4^2} = 0$$

$$R - \frac{N_3 \cdot N_4 \cdot (N_2 - N_1 \cdot N_4)}{N_1 \cdot N_4^2 + N_2 \cdot (N_3 \cdot N_4^2 - N_4 + N_3)} = 0$$

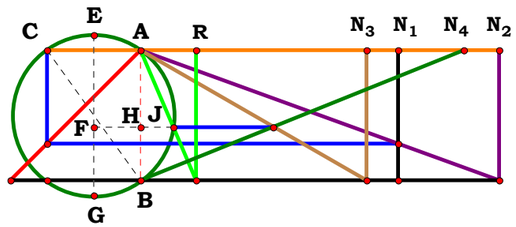
$$N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0 \quad N_4 - \frac{N_u}{D} = 0$$

$$R - \frac{N_u \cdot (A \cdot D - B \cdot N_u)}{A \cdot D^2 - A \cdot C \cdot D + A \cdot N_u^2 + B \cdot C \cdot N_u} = 0$$

$$N_1 - \frac{W}{m} = 0 \quad N_2 - \frac{X}{n} = 0 \quad N_3 - \frac{Y}{o} = 0 \quad N_4 - \frac{Z}{p} = 0$$

$$R - \frac{Y \cdot Z \cdot (X \cdot m \cdot p - W \cdot Z \cdot n)}{Z^2 \cdot (X \cdot Y \cdot m + W \cdot n \cdot o) + X \cdot m \cdot p \cdot (Y \cdot p - Z \cdot o)} = 0$$

4RST3AB5R1



$N_1 = 1.97331$
$N_2 = 2.74817$
$N_3 = 1.73589$
$N_4 = 2.47933$
$R = 0.42533$

Unit. $AB := 1$ Given. $N_1 := 1.97331$ $N_2 := 2.74817$ $N_3 := 1.73589$ $N_4 := 2.47933$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

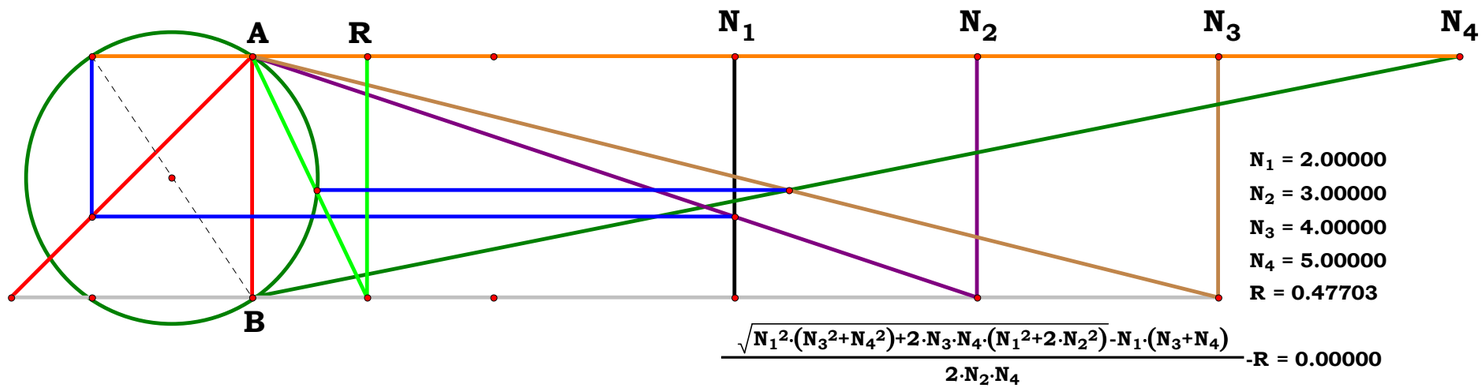
Descriptions.

$AC := \frac{N_1}{N_2}$ $AH := \frac{AB \cdot N_4}{N_4 + N_3}$

$EG := \sqrt{AB^2 + AC^2}$ $EF := AH + \frac{(EG - AB)}{2}$

$FJ := \sqrt{EF \cdot (EG - EF)}$ $HJ := FJ - \frac{AC}{2}$

$R := \frac{HJ \cdot AB}{AH}$ $R = 0.425332$



$N_1 = 2.00000$
$N_2 = 3.00000$
$N_3 = 4.00000$
$N_4 = 5.00000$
$R = 0.47703$

$\frac{\sqrt{N_1^2 \cdot (N_3^2 + N_4^2) + 2 \cdot N_3 \cdot N_4 \cdot (N_1^2 + 2 \cdot N_2^2)} - N_1 \cdot (N_3 + N_4)}{2 \cdot N_2 \cdot N_4} - R = 0.00000$

Definitions.

$$R - \frac{\left[\sqrt{AC^2 \cdot N_3^2 + 2 \cdot AC^2 \cdot N_3 \cdot N_4 + AC^2 \cdot N_4^2 + 4 \cdot N_3 \cdot N_4} - AC \cdot \sqrt{(N_3 + N_4)^2}\right] \cdot (N_3 + N_4)}{2 \cdot N_4 \cdot \sqrt{(N_3 + N_4)^2}} = 0$$

$$R - \frac{\sqrt{N_1^2 \cdot (N_3^2 + N_4^2) + 2 \cdot N_3 \cdot N_4 \cdot (N_1^2 + 2 \cdot N_2^2)} - N_1 \cdot (N_3 + N_4)}{2 \cdot N_2 \cdot N_4} = 0$$

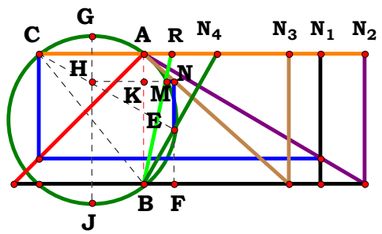
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{\sqrt{4 \cdot A^2 \cdot C \cdot D + B^2 \cdot C^2 + 2 \cdot B^2 \cdot C \cdot D + B^2 \cdot D^2} - B \cdot (C + D)}{2 \cdot A \cdot C} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{\sqrt{W^2 \cdot n^2 \cdot (Y \cdot p + Z \cdot o)^2 + 4 \cdot X^2 \cdot Y \cdot Z \cdot m^2 \cdot o \cdot p} - W \cdot n \cdot (Y \cdot p + Z \cdot o)}{2 \cdot X \cdot Z \cdot m \cdot o} = 0$$

4RST3AB5R2



$N_1 = 1.35342$
$N_2 = 1.69242$
$N_3 = 1.11600$
$N_4 = 0.56155$
$R = 0.21705$

Unit. $AB := 1$ **Given.** $N_1 := 1.35342$ $N_2 := 1.69242$ $N_3 := 1.11600$ $N_4 := .56155$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

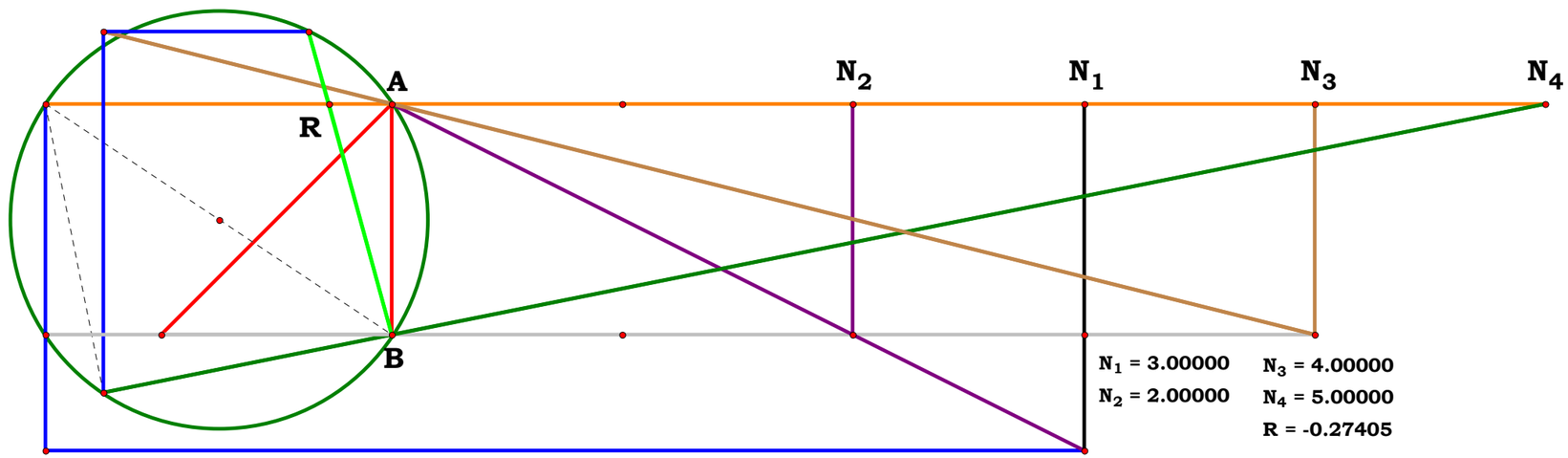
$AC := \frac{N_1}{N_2}$ $CN_4 := N_4 + AC$ $BN_4 := \sqrt{N_4^2 + AB^2}$

$EN_4 := \frac{N_4 \cdot CN_4}{BN_4}$ $BF := \frac{N_4 \cdot (BN_4 - EN_4)}{BN_4}$

$AK := \frac{AB \cdot BF}{N_3}$ $GJ := \sqrt{AB^2 + AC^2}$

$GH := AK + \frac{GJ - AB}{2}$ $HM := \sqrt{GH \cdot (GJ - GH)}$

$KM := HM - \frac{AC}{2}$ $R := \frac{KM \cdot AB}{AB - AK}$ $R = 0.217052$



$N_1 = 3.00000$
$N_2 = 2.00000$
$N_3 = 4.00000$
$N_4 = 5.00000$
$R = -0.27405$

$\frac{\sqrt{(N_1 \cdot N_3 \cdot (N_4^2+1))^2 - 4 \cdot N_4 \cdot (N_1 \cdot N_4 - N_2) \cdot (N_4 \cdot (N_1 \cdot N_4 - N_2) + N_2 \cdot N_3 \cdot (N_4^2+1))} - N_1 \cdot N_3 \cdot (N_4^2+1)}{2 \cdot (((N_1 \cdot N_4^2 + N_2 \cdot N_3) - N_2 \cdot N_4) + N_2 \cdot N_3 \cdot N_4^2)} - R = 0.00000$

Definitions.

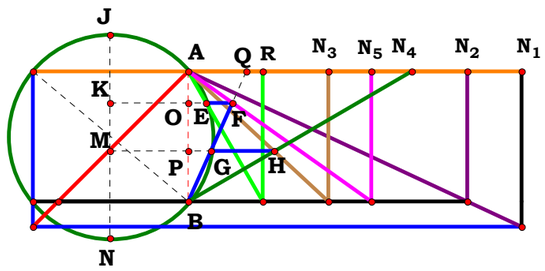
$$R - \frac{N_3 \cdot (N_4^2+1) \cdot \left[AC \cdot \sqrt{\left[N_3 \cdot (N_4^2+1) \right]^2} - \sqrt{AC \cdot N_3 \cdot N_4^2 \cdot (2 \cdot AC \cdot N_3 - 4 \cdot N_4^2 + AC \cdot N_3 \cdot N_4^2 - 4) + AC^2 \cdot N_3^2 - 4 \cdot AC \cdot N_4^3 \cdot (AC \cdot N_4 - 2) + 4 \cdot N_3 \cdot N_4 \cdot (N_4^2+1) - 4 \cdot N_4^2} \right]}{2 \cdot \sqrt{\left[N_3 \cdot (N_4^2+1) \right]^2} \cdot (N_4 - N_3 - N_3 \cdot N_4^2 - AC \cdot N_4^2)} = 0$$

$$R - \frac{\sqrt{N_1^2 \cdot N_3^2 \cdot (N_4^2+1)^2 - 4 \cdot N_4^2 \cdot (N_2 - N_1 \cdot N_4)^2 + 4 \cdot N_2 \cdot N_3 \cdot N_4 \cdot (N_2 - N_1 \cdot N_4) \cdot (N_4^2+1)} - N_1 \cdot N_3 \cdot (N_4^2+1)}{2 \cdot (N_1 \cdot N_4^2 + N_2 \cdot N_3 - N_2 \cdot N_4 + N_2 \cdot N_3 \cdot N_4^2)} = 0 \qquad N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0 \quad N_4 - \frac{N_u}{D} = 0$$

$$R - \frac{B \cdot (D^2 + N_u^2) - \sqrt{B^2 \cdot (D^2 + N_u^2)^2 - 4 \cdot C^2 \cdot (A \cdot D - B \cdot N_u)^2 + 4 \cdot A \cdot C \cdot (D^2 + N_u^2) \cdot (A \cdot D - B \cdot N_u)}}{2 \cdot \left[A \cdot D \cdot (C - D) - N_u \cdot (B \cdot C + A \cdot N_u) \right]} = 0 \qquad N_1 - \frac{W}{m} = 0 \quad N_2 - \frac{X}{n} = 0 \quad N_3 - \frac{Y}{o} = 0 \quad N_4 - \frac{Z}{p} = 0$$

$$R - \frac{\sqrt{Y^2 \cdot W^2 \cdot n^2 \cdot (Z^2 + p^2)^2 - 4 \cdot Z \cdot o \cdot (W \cdot Z \cdot n - X \cdot m \cdot p) \cdot \left[Z^2 \cdot (X \cdot Y \cdot m + W \cdot n \cdot o) + X \cdot m \cdot p \cdot (Y \cdot p - Z \cdot o) \right]} - W \cdot Y \cdot Z^2 \cdot n - W \cdot Y \cdot n \cdot p^2}{2 \cdot (X \cdot Y \cdot Z^2 \cdot m + W \cdot Z^2 \cdot n \cdot o + X \cdot Y \cdot m \cdot p^2 - X \cdot Z \cdot m \cdot o \cdot p)} = 0$$

4RST3AB5R3



$N_1 = 2.55445$
$N_2 = 2.13797$
$N_3 = 1.07726$
$N_4 = 1.71415$
$N_5 = 1.40444$
$R = 0.56869$

Unit. $AB := 1$ **Given.** $N_1 := 2.55445$ $N_2 := 2.13797$ $N_3 := 1.07726$ $N_4 := 1.71415$ $N_5 := 1.40444$

Descriptions.

$$AC := \frac{N_1}{N_2} \qquad BP := \frac{AB \cdot N_3}{N_3 + N_4}$$

$$JN := \sqrt{AB^2 + AC^2} \qquad JM := JN - \left(BP + \frac{JN - AB}{2}\right)$$

$$GM := \sqrt{JM \cdot (JN - JM)}$$

$$PG := GM - \frac{AC}{2}$$

$$AQ := \frac{PG \cdot AB}{BP}$$

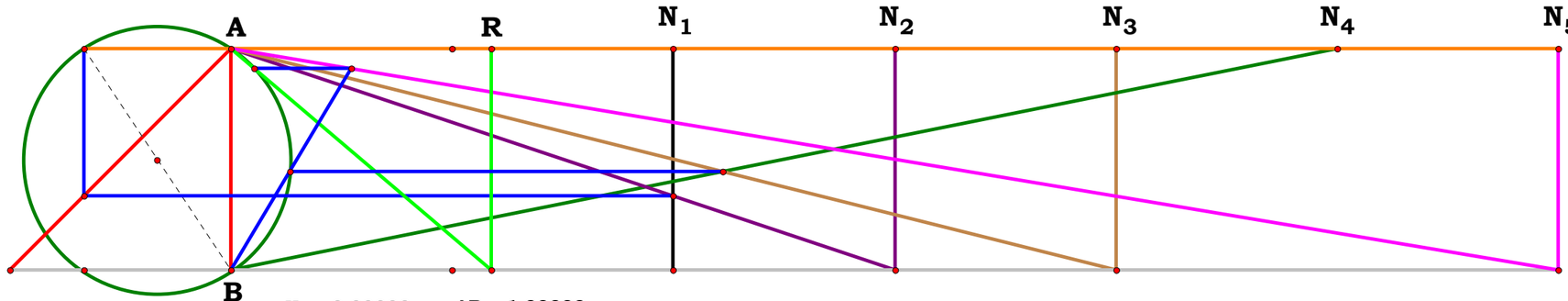
$$AO := \frac{AB \cdot AQ}{AQ + N_5}$$

$$JK := AO + \frac{JN - AB}{2}$$

$$EK := \sqrt{JK \cdot (JN - JK)}$$

$$EO := EK - \frac{AC}{2} \qquad AR := \frac{EO \cdot AB}{AO}$$

$AR = 0.568687$

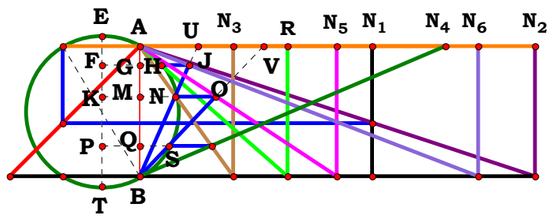


$N_1 = 2.00000$
$N_2 = 3.00000$
$N_3 = 4.00000$
$N_4 = 5.00000$
$N_5 = 6.00000$
$R = 1.17666$

$AB = 1.00000$
$AC = 0.66667$
$BP = 0.44444$
$JN = 1.20185$
$JM = 0.65648$
$GM = 0.59835$
$PG = 0.26502$

$AQ = 0.59629$
$AO = 0.09040$
$JK = 0.19132$
$EK = 0.43970$
$EO = 0.10637$
$R - \frac{EO \cdot AB}{AO} = 0.00000$

4RST3AB5R4



$N_1 = 1.77959$ $N_5 = 1.51098$
$N_2 = 3.02906$ $N_6 = 2.59579$
$N_3 = 0.71888$ $R = 1.13216$
$N_4 = 2.34373$

Unit. $AB := 1$ **Given.** $N_1 := 1.77959$ $N_2 := 3.02906$ $N_3 := .71888$
$N_4 := 2.34373$ $N_5 := 1.51098$ $N_6 := 2.59579$

Descriptions.

$$AC := \frac{N_1}{N_2} \qquad BQ := \frac{AB \cdot N_3}{N_3 + N_4}$$

$$ET := \sqrt{AB^2 + AC^2} \qquad EP := ET - \left(BQ + \frac{ET - AB}{2}\right)$$

$$PS := \sqrt{EP \cdot (ET - EP)} \qquad QS := PS - \frac{AC}{2}$$

$$AV := \frac{QS \cdot AB}{BQ} \qquad BM := \frac{AB \cdot N_5}{AV + N_5}$$

$$KT := BM + \frac{ET - AB}{2}$$

$$KN := \sqrt{KT \cdot (ET - KT)}$$

$$MN := KN - \frac{AC}{2}$$

$$AU := \frac{MN \cdot AB}{BM}$$

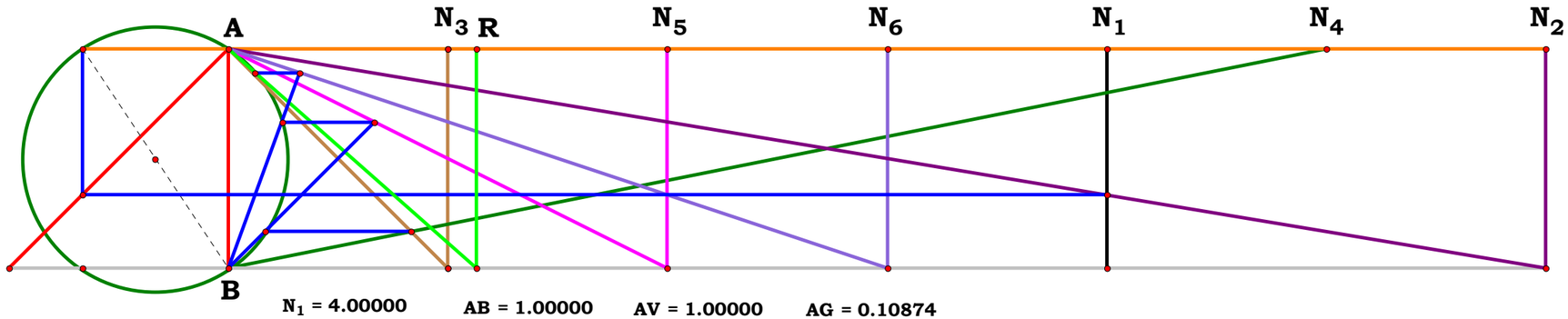
$$BG := \frac{AB \cdot N_6}{AU + N_6}$$

$$AG := AB - BG$$

$$EF := AG + \frac{ET - AB}{2} \qquad FH := \sqrt{EF \cdot (ET - EF)}$$

$$GH := FH - \frac{AC}{2} \qquad AR := \frac{GH \cdot AB}{AG}$$

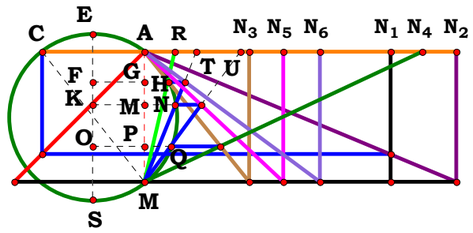
$AR = 1.132161$



$N_1 = 4.00000$ $AB = 1.00000$ $AV = 1.00000$ $AG = 0.10874$
$N_2 = 6.00000$ $AC = 0.66667$ $BM = 0.66667$ $EF = 0.20967$
$N_3 = 1.00000$ $BQ = 0.16667$ $KT = 0.76759$ $FH = 0.45610$
$N_4 = 5.00000$ $ET = 1.20185$ $KN = 0.57735$ $GH = 0.12277$
$N_5 = 2.00000$ $EP = 0.93426$ $MN = 0.24402$ $R - \frac{GH \cdot AB}{AG} = 0.00000$
$N_6 = 3.00000$ $PS = 0.50000$ $AU = 0.36603$
$R = 1.12898$ $QS = 0.16667$ $BG = 0.89126$

Definitions.

4RST3AB5R5



$N_1 = 1.88613$ $N_5 = 1.06544$
$N_2 = 2.38980$ $N_6 = 1.34632$
$N_3 = 0.80606$ $R = 0.23489$
$N_4 = 2.13064$

Unit. $AB := 1$ **Given.** $N_1 := 1.88613$ $N_2 := 2.38980$ $N_3 := .80606$
$N_4 := 2.13064$ $N_5 := 1.06544$ $N_6 := 1.34632$

Descriptions.

$$AC := \frac{N_1}{N_2} \qquad BP := \frac{AB \cdot N_3}{N_3 + N_4}$$

$$ES := \sqrt{AB^2 + AC^2} \qquad OS := BP + \frac{ES - AB}{2}$$

$$OQ := \sqrt{OS \cdot (ES - OS)} \qquad PQ := OQ - \frac{AC}{2}$$

$$AU := \frac{PQ \cdot AB}{BP}$$

$$BM := \frac{AB \cdot N_5}{N_5 + AU}$$

$$KS := BM + \frac{ES - AB}{2}$$

$$KN := \sqrt{KS \cdot (ES - KS)}$$

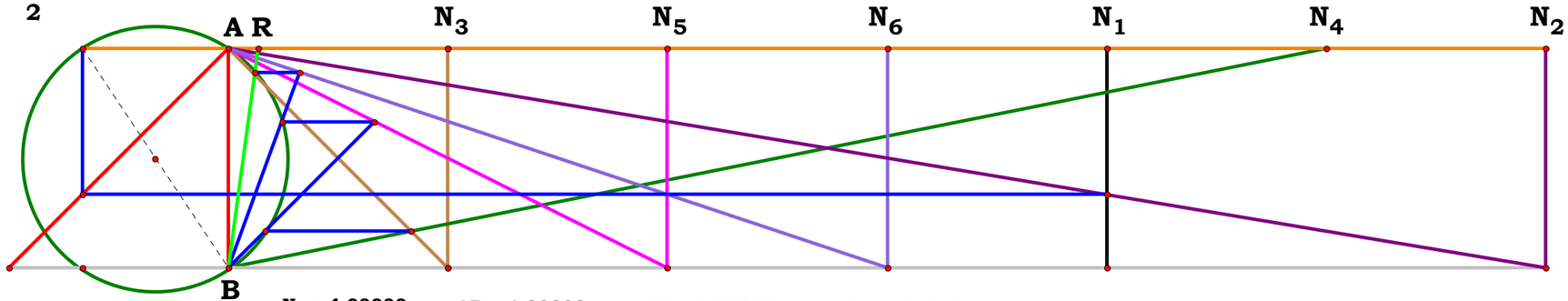
$$MN := KN - \frac{AC}{2}$$

$$AT := \frac{MN \cdot AB}{BM}$$

$$BG := \frac{N_6 \cdot AB}{N_6 + AT} \qquad FS := BG + \frac{ES - AB}{2}$$

$$FH := \sqrt{FS \cdot (ES - FS)} \qquad GH := FH - \frac{AC}{2}$$

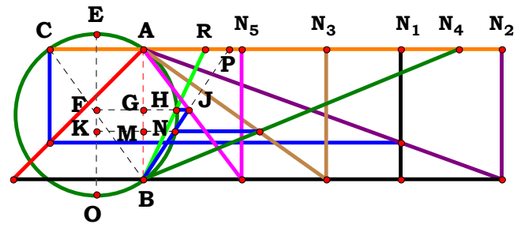
$$AR := \frac{GH \cdot AB}{BG} \qquad AR = 0.234891$$



$N_1 = 4.00000$ $AB = 1.00000$ $AU = 1.00000$ $FS = 0.99218$
$N_2 = 6.00000$ $AC = 0.66667$ $BM = 0.66667$ $FH = 0.45610$
$N_3 = 1.00000$ $BP = 0.16667$ $KS = 0.76759$ $GH = 0.12277$
$N_4 = 5.00000$ $ES = 1.20185$ $KN = 0.57735$ $R - \frac{GH \cdot AB}{BG} = 0.00000$
$N_5 = 2.00000$ $OS = 0.26759$ $MN = 0.24402$
$N_6 = 3.00000$ $OQ = 0.50000$ $AT = 0.36603$
$R = 0.13775$ $PQ = 0.16667$ $BG = 0.89126$

Definitions.

4RST3AB5R6



$N_1 = 1.97331$
$N_2 = 2.74817$
$N_3 = 1.40657$
$N_4 = 2.42122$
$N_5 = 0.75549$
R = 0.47844

Unit. $AB := 1$ Given. $N_1 := 1.97331$ $N_2 := 2.74817$ $N_3 := 1.40657$
$N_4 := 2.42122$ $N_5 := .75549$

Descriptions.

$$AC := \frac{N_1}{N_2} \qquad BM := \frac{N_3 \cdot AB}{N_3 + N_4}$$

$$EO := \sqrt{AB^2 + AC^2} \qquad KO := BM + \frac{EO - AB}{2}$$

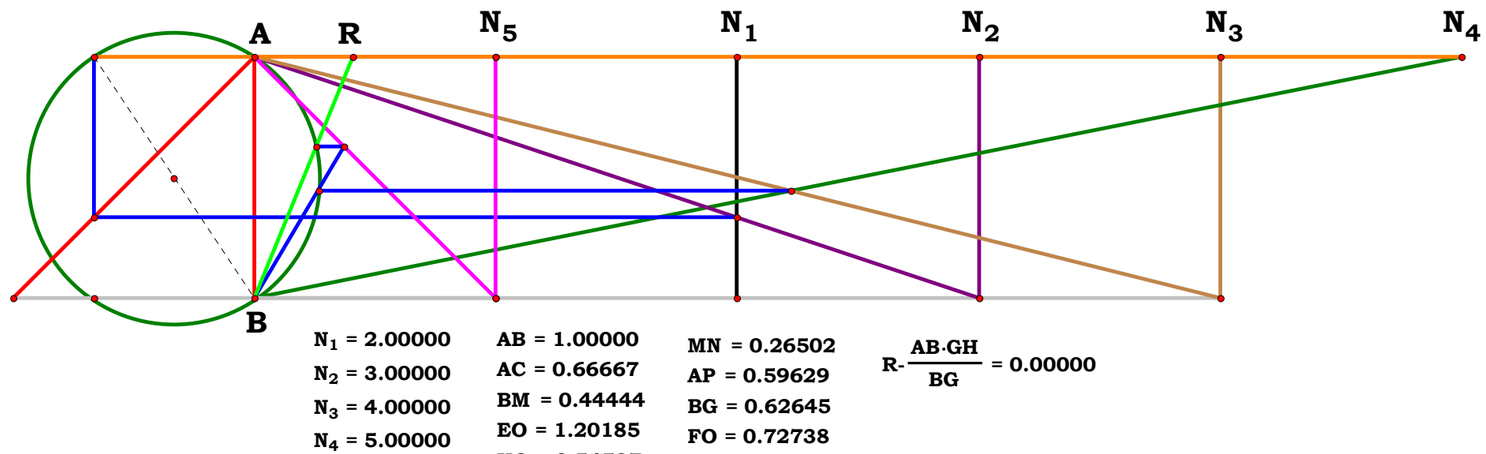
$$KN := \sqrt{KO \cdot (EO - KO)} \qquad MN := KN - \frac{AC}{2}$$

$$AP := \frac{MN \cdot AB}{BM} \qquad BG := \frac{N_5 \cdot AB}{AP + N_5}$$

$$FO := BG + \frac{EO - AB}{2} \qquad FH := \sqrt{FO \cdot (EO - FO)}$$

$$GH := FH - \frac{AC}{2} \qquad AR := \frac{GH \cdot AB}{BG}$$

AR = 0.47844



$N_1 = 2.00000$
$N_2 = 3.00000$
$N_3 = 4.00000$
$N_4 = 5.00000$
$N_5 = 1.00000$
R = 0.40568

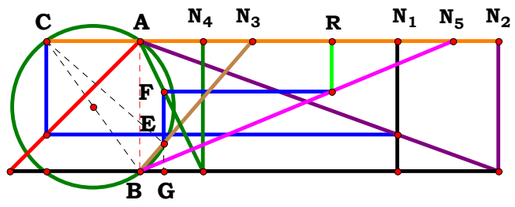
AB = 1.00000
AC = 0.66667
BM = 0.44444
EO = 1.20185
KO = 0.54537
KN = 0.59835

MN = 0.26502
AP = 0.59629
BG = 0.62645
FO = 0.72738
FH = 0.58747
GH = 0.25414

$R - \frac{AB \cdot GH}{BG} = 0.00000$

Definitions.

4RST3AB5R7



$N_1 = 1.97331$
$N_2 = 2.74817$
$N_3 = 0.86417$
$N_4 = 0.48406$
$N_5 = 2.40207$
$R = 1.47045$

Unit. $AB := 1$ Given. $N_1 := 1.97331$ $N_2 := 2.74817$ $N_3 := .86417$ $N_4 := .48406$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $N_5 := 2.40207$

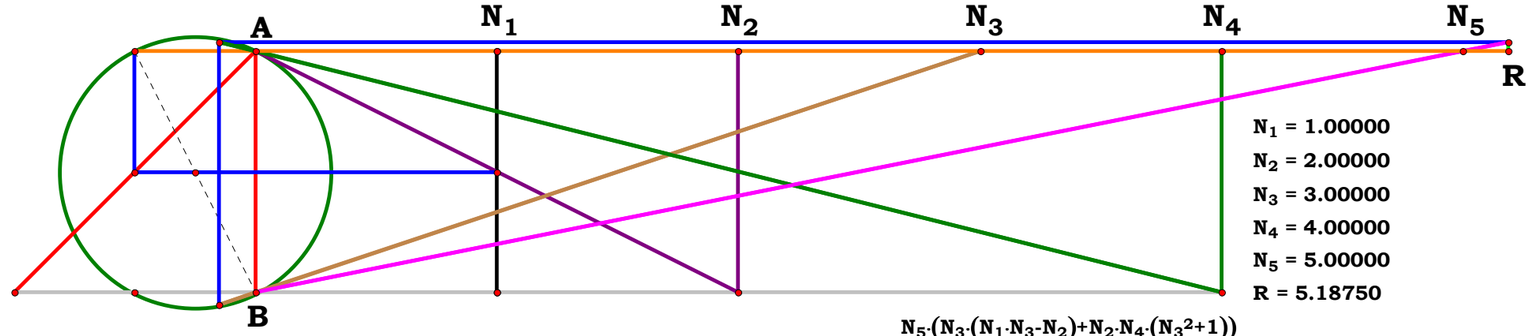
$V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $l := \frac{V}{N_1}$ $m := \frac{W}{N_2}$ $n := \frac{X}{N_3}$ $o := \frac{Y}{N_4}$ $p := \frac{Z}{N_5}$

Descriptions.

$$AC := \frac{N_1}{N_2} \qquad CN_3 := N_3 + AC \qquad BN_3 := \sqrt{N_3^{\,2} + AB^2}$$

$$EN_3 := \frac{N_3 \cdot CN_3}{BN_3} \qquad BG := \frac{N_3 \cdot (BN_3 - EN_3)}{BN_3}$$

$$FG := \frac{AB \cdot (N_4 - BG)}{N_4} \qquad R := \frac{N_5 \cdot FG}{AB} \qquad R = 1.470443$$



$N_1 = 1.00000$
$N_2 = 2.00000$
$N_3 = 3.00000$
$N_4 = 4.00000$
$N_5 = 5.00000$
$R = 5.18750$

$$\frac{N_5 \cdot (N_3 \cdot (N_1 \cdot N_3 - N_2) + N_2 \cdot N_4 \cdot (N_3^{\,2}+1))}{N_2 \cdot N_4 \cdot (N_3^{\,2}+1)} - R = 0.00000$$

Definitions.

$$R - \frac{N_5 \cdot \left(N_4 - N_3 + N_3^{\,2} \cdot N_4 + AC \cdot N_3^{\,2}\right)}{N_4 \cdot \left(N_3^{\,2} + 1\right)} = 0$$

$$R - \frac{N_5 \cdot \left[N_3 \cdot \left(N_1 \cdot N_3 - N_2\right) + N_2 \cdot N_4 \cdot \left(N_3^{\,2} + 1\right)\right]}{N_2 \cdot N_4 \cdot \left(N_3^{\,2} + 1\right)} = 0$$

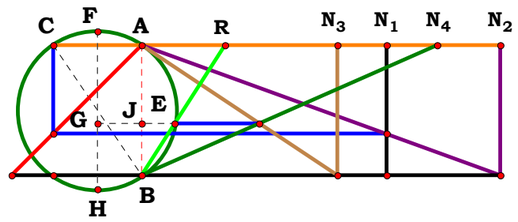
$$N_1 - \frac{N_u}{A} = 0 \qquad N_2 - \frac{N_u}{B} = 0 \qquad N_3 - \frac{N_u}{C} = 0 \qquad N_4 - \frac{N_u}{D} = 0 \qquad N_5 - \frac{N_u}{E} = 0$$

$$R - \frac{A \cdot C \cdot N_u \cdot (C - D) + N_u^{\,2} \cdot \left(B \cdot D + A \cdot N_u\right)}{A \cdot E \cdot \left(C^2 + N_u^{\,2}\right)} = 0$$

$$N_1 - \frac{V}{l} = 0 \qquad N_2 - \frac{W}{m} = 0 \qquad N_3 - \frac{X}{n} = 0 \qquad N_4 - \frac{Y}{o} = 0 \qquad N_5 - \frac{Z}{p} = 0$$

$$R - \frac{X^2 \cdot Z \cdot (W \cdot Y \cdot l + V \cdot m \cdot o) + -W \cdot Z \cdot l \cdot n \cdot (X \cdot o - Y \cdot n)}{W \cdot Y \cdot l \cdot p \cdot X^2 + W \cdot Y \cdot l \cdot p \cdot n^2} = 0$$

4RST3AB5R8



$N_1 = 1.87645$
$N_2 = 2.74817$
$N_3 = 1.50343$
$N_4 = 2.26624$
$R = 0.64069$

Unit. $AB := 1$ Given. $N_1 := 1.87645$ $N_2 := 2.74817$ $N_3 := 1.50343$ $N_4 := 2.26624$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

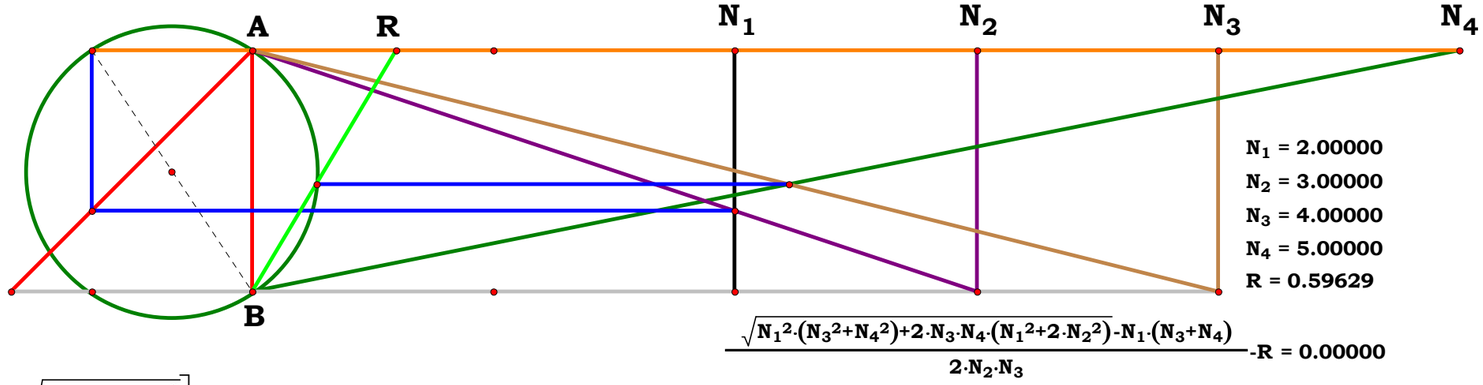
Descriptions.

$AC := \frac{N_1}{N_2}$ $BJ := \frac{AB \cdot N_3}{N_3 + N_4}$

$FH := \sqrt{AB^2 + AC^2}$ $GH := BJ + \frac{FH - AB}{2}$

$GE := \sqrt{GH \cdot (FH - GH)}$ $JE := GE - \frac{AC}{2}$

$R := \frac{JE \cdot AB}{BJ}$ $R = 0.640693$



$N_1 = 2.00000$
$N_2 = 3.00000$
$N_3 = 4.00000$
$N_4 = 5.00000$
$R = 0.59629$

$\frac{\sqrt{N_1^2 \cdot (N_3^2 + N_4^2) + 2 \cdot N_3 \cdot N_4 \cdot (N_1^2 + 2 \cdot N_2^2)} - N_1 \cdot (N_3 + N_4)}{2 \cdot N_2 \cdot N_3} - R = 0.00000$

Definitions.

$$R - \frac{\left[\sqrt{AC^2 \cdot N_3^2 + 2 \cdot AC^2 \cdot N_3 \cdot N_4 + AC^2 \cdot N_4^2 + 4 \cdot N_3 \cdot N_4} - AC \cdot \sqrt{(N_3 + N_4)^2}\right] \cdot (N_3 + N_4)}{2 \cdot N_3 \cdot \sqrt{(N_3 + N_4)^2}} = 0$$

$$R - \frac{\sqrt{N_1^2 \cdot (N_3^2 + N_4^2) + 2 \cdot N_3 \cdot N_4 \cdot (N_1^2 + 2 \cdot N_2^2)} - N_1 \cdot (N_3 + N_4)}{2 \cdot N_2 \cdot N_3} = 0$$

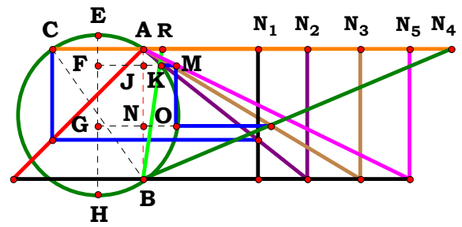
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{\sqrt{4 \cdot A^2 \cdot C \cdot D + B^2 \cdot C^2 + 2 \cdot B^2 \cdot C \cdot D + B^2 \cdot D^2} - B \cdot (C + D)}{2 \cdot A \cdot D} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{\sqrt{W^2 \cdot n^2 \cdot (Y^2 \cdot p^2 + Z^2 \cdot o^2) + 2 \cdot Y \cdot Z \cdot o \cdot p \cdot (W^2 \cdot n^2 + 2 \cdot X^2 \cdot m^2)} - W \cdot n \cdot (Y \cdot p + Z \cdot o)}{2 \cdot X \cdot Y \cdot m \cdot p} = 0$$

4RST3AB5R9



$N_1 = 0.87881$
$N_2 = 1.25656$
$N_3 = 1.66809$
$N_4 = 2.36310$
$N_5 = 2.04370$
R = 0.14984

Unit. $AB := 1$ **Given.** $N_1 := .87881$ $N_2 := 1.25656$ $N_3 := 1.66809$ $N_4 := 2.36310$ $N_5 := 2.04370$

Descriptions.

$$AC := \frac{N_1}{N_2} \qquad EH := \sqrt{AB^2 + AC^2}$$

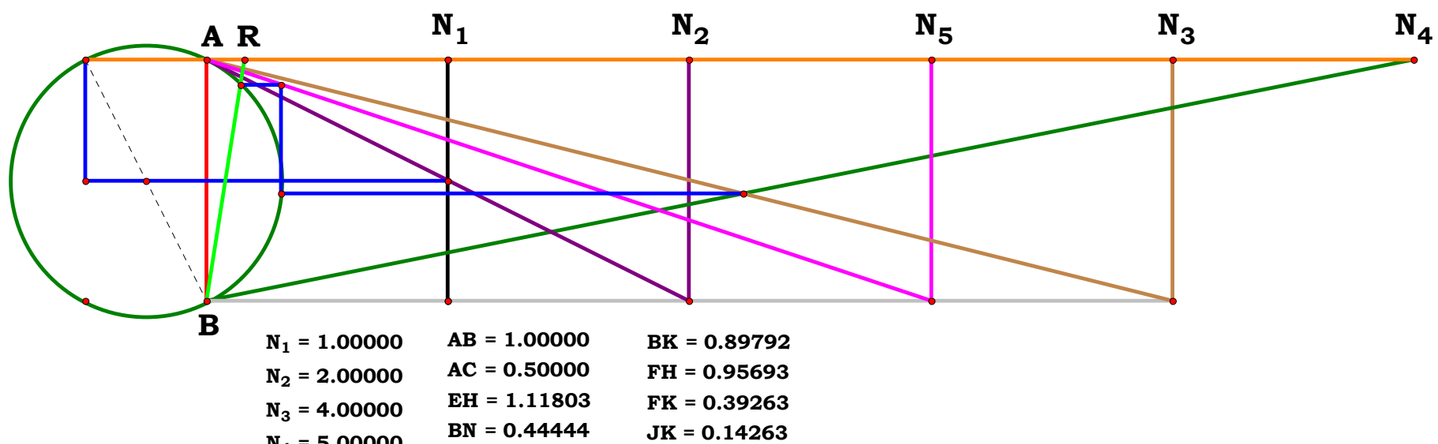
$$BN := \frac{AB \cdot N_3}{N_3 + N_4} \qquad GH := BN + \frac{EH - AB}{2}$$

$$GO := \sqrt{GH \cdot (EH - GH)} \qquad NO := GO - \frac{AC}{2}$$

$$BK := \frac{AB \cdot (N_5 - NO)}{N_5} \qquad FH := BK + \frac{EH - AB}{2}$$

$$FK := \sqrt{FH \cdot (EH - FH)} \qquad JK := FK - \frac{AC}{2}$$

$$AR := \frac{JK \cdot AB}{BK} \qquad AR = 0.149838$$

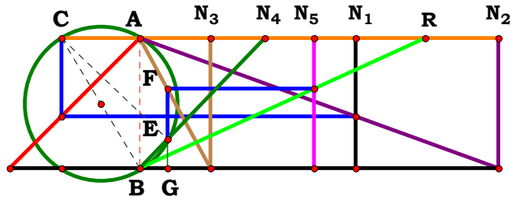


$N_1 = 1.00000$
$N_2 = 2.00000$
$N_3 = 4.00000$
$N_4 = 5.00000$
$N_5 = 3.00000$
R = 0.15885

AB = 1.00000
AC = 0.50000
EH = 1.11803
BN = 0.44444
GH = 0.50346
GO = 0.55625
NO = 0.30625

BK = 0.89792
FH = 0.95693
FK = 0.39263
JK = 0.14263
$R - \frac{AB \cdot JK}{BK} = 0.00000$

4RST3AB5R10



$N_1 = 1.65368$
$N_2 = 2.74817$
$N_3 = 0.54454$
$N_4 = 0.95866$
$N_5 = 1.33664$
$R = 2.18469$

Unit. $AB := 1$ Given. $N_1 := 1.65368$ $N_2 := 2.74817$ $N_3 := .54454$ $N_4 := .95866$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $N_5 := 1.33664$

$V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $l := \frac{V}{N_1}$ $m := \frac{W}{N_2}$ $n := \frac{X}{N_3}$ $o := \frac{Y}{N_4}$ $p := \frac{Z}{N_5}$

Descriptions.

$AC := \frac{N_1}{N_2}$ $CN_4 := N_4 + AC$

$BN_4 := \sqrt{N_4^2 + AB^2}$ $EN_4 := \frac{N_4 \cdot CN_4}{BN_4}$

$BG := N_4 \cdot \frac{(BN_4 - EN_4)}{BN_4}$ $FG := AB \cdot \frac{(N_3 - BG)}{N_3}$

$R := \frac{N_5 \cdot AB}{FG}$ $R = 2.184699$

Definitions.

$$R - \frac{N_3 \cdot N_5 \cdot (N_4^2 + 1)}{N_3 - N_4 + N_3 \cdot N_4^2 + AC \cdot N_4^2} = 0$$

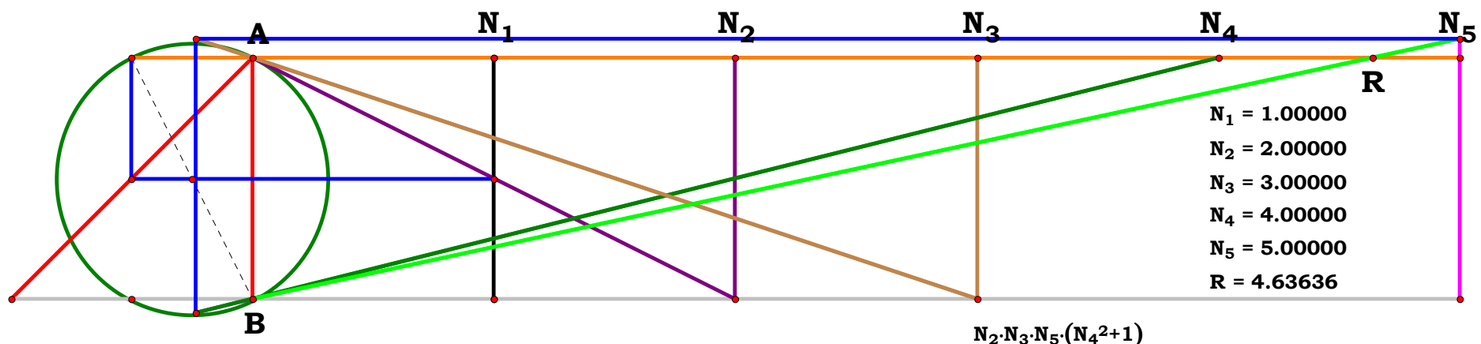
$$R - \frac{N_2 \cdot N_3 \cdot N_5 \cdot (N_4^2 + 1)}{(N_3 \cdot N_4^2 - N_4 + N_3) \cdot N_2 + N_1 \cdot N_4^2} = 0$$

$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$

$$R - \frac{A \cdot N_u \cdot (D^2 + N_u^2)}{E \cdot [A \cdot D \cdot (D - C) + N_u \cdot (B \cdot C + A \cdot N_u)]} = 0$$

$N_1 - \frac{V}{l} = 0$ $N_2 - \frac{W}{m} = 0$ $N_3 - \frac{X}{n} = 0$ $N_4 - \frac{Y}{o} = 0$ $N_5 - \frac{Z}{p} = 0$

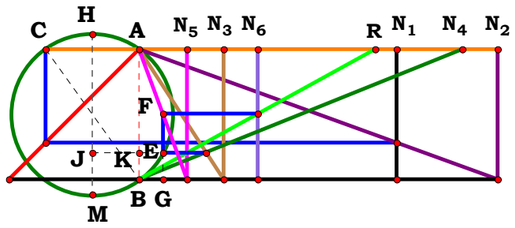
$$R - \frac{W \cdot X \cdot Z \cdot l \cdot (Y^2 + o^2)}{p \cdot [Y^2 \cdot (W \cdot X \cdot l + V \cdot m \cdot n) + W \cdot l \cdot o \cdot (X \cdot o - Y \cdot n)]} = 0$$



$N_1 = 1.00000$
$N_2 = 2.00000$
$N_3 = 3.00000$
$N_4 = 4.00000$
$N_5 = 5.00000$
$R = 4.63636$

$$\frac{N_2 \cdot N_3 \cdot N_5 \cdot (N_4^2 + 1)}{N_2 \cdot ((N_3 \cdot N_4^2 - N_4) + N_3) + N_1 \cdot N_4^2} - R = 0.00000$$

4RST3AB5R11



$N_1 = 1.97331$
$N_2 = 2.74817$
$N_3 = 0.65108$
$N_4 = 2.47933$
$N_5 = 0.36806$
$N_6 = 0.91046$
$R = 1.80932$

Unit. $AB := 1$ Given. $N_1 := 1.97331$ $N_2 := 2.74817$ $N_3 := .65108$

$N_4 := 2.47933$ $N_5 := .36806$ $N_6 := .91046$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $F := \frac{N_u}{N_6}$

$U := 18$ $V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$k := \frac{U}{N_1}$ $l := \frac{V}{N_2}$ $m := \frac{W}{N_3}$ $n := \frac{X}{N_4}$ $o := \frac{Y}{N_5}$ $p := \frac{Z}{N_6}$

Descriptions.

$AC := \frac{N_1}{N_2}$ $EG := \frac{N_3 \cdot AB}{N_3 + N_4}$ $HM := \sqrt{AB^2 + AC^2}$

$JM := EG + \frac{HM - AB}{2}$

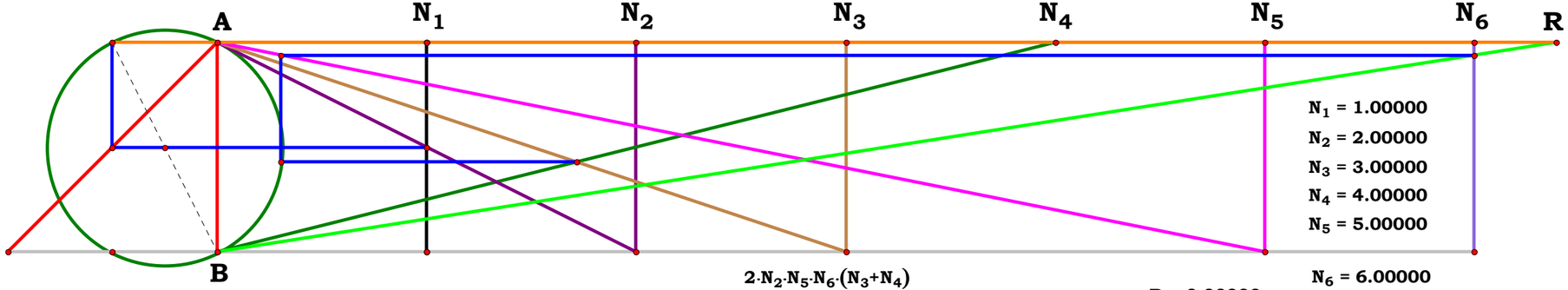
$JE := \sqrt{JM \cdot (HM - JM)}$

$BG := JE - \frac{AC}{2}$

$FG := \frac{AB \cdot (N_5 - BG)}{N_5}$

$R := \frac{N_6 \cdot AB}{FG}$

$R = 1.809309$



$N_1 = 1.00000$
$N_2 = 2.00000$
$N_3 = 3.00000$
$N_4 = 4.00000$
$N_5 = 5.00000$
$N_6 = 6.00000$
$R = 6.38901$

$$\frac{2 \cdot N_2 \cdot N_5 \cdot N_6 \cdot (N_3 + N_4)}{(N_1 \cdot (N_3 + N_4) + 2 \cdot N_2 \cdot N_5 \cdot (N_3 + N_4)) - \sqrt{N_1^2 \cdot (N_3^2 + N_4^2) + 2 \cdot N_3 \cdot N_4 \cdot (N_1^2 + 2 \cdot N_2^2)}} - R = 0.00000$$

Definitions.

$$R - \frac{2 \cdot N_5 \cdot N_6 \cdot \sqrt{(N_3 + N_4)^2}}{\sqrt{(N_3 + N_4)^2} \cdot (AC + 2 \cdot N_5) - \sqrt{AC^2 \cdot (N_3 + N_4)^2 + 4 \cdot N_3 \cdot N_4}} = 0$$

$$R - \frac{2 \cdot N_2 \cdot N_5 \cdot N_6 \cdot (N_3 + N_4)}{(N_3 + N_4) \cdot (N_1 + 2 \cdot N_2 \cdot N_5) - \sqrt{N_1^2 \cdot (N_3^2 + N_4^2) + 2 \cdot N_3 \cdot N_4 \cdot (N_1^2 + 2 \cdot N_2^2)}} = 0$$

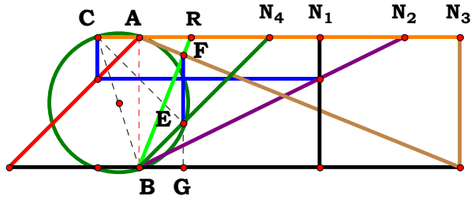
$$R - \frac{2 \cdot A \cdot N_u^2 \cdot (C + D)}{F \cdot \left[B \cdot E \cdot (C + D) + 2 \cdot A \cdot N_u \cdot (C + D) - E \cdot \sqrt{B^2 \cdot C^2 + B^2 \cdot D^2 + 2 \cdot C \cdot D \cdot (2 \cdot A^2 + B^2)} \right]} = 0$$

$$R - \frac{2 \cdot V \cdot Y \cdot Z \cdot k \cdot (W \cdot n + X \cdot m)}{p \cdot \left[(W \cdot n + X \cdot m) \cdot (2 \cdot V \cdot Y \cdot k + U \cdot l \cdot o) - o \cdot \sqrt{U^2 \cdot l^2 \cdot (W^2 \cdot n^2 + X^2 \cdot m^2) + 2 \cdot W \cdot X \cdot m \cdot n \cdot (U^2 \cdot l^2 + 2 \cdot V^2 \cdot k^2)} \right]} = 0$$

$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$ $N_6 - \frac{N_u}{F} = 0$

$N_1 - \frac{U}{k} = 0$ $N_2 - \frac{V}{l} = 0$ $N_3 - \frac{W}{m} = 0$ $N_4 - \frac{X}{n} = 0$ $N_5 - \frac{Y}{o} = 0$ $N_6 - \frac{Z}{p} = 0$

4RST3AB6R0



$N_1 = 1.38247$
$N_2 = 2.03142$
$N_3 = 2.46232$
$N_4 = 0.99741$
$R = 0.39539$

Unit. $AB := 1$ Given. $N_1 := 1.38247$ $N_2 := 2.03142$ $N_3 := 2.46232$ $N_4 := .99741$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

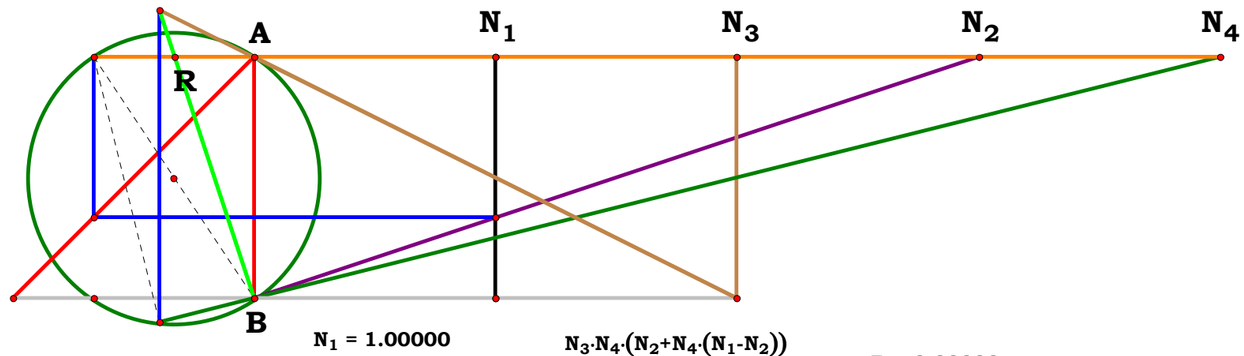
$$AC := \frac{N_2 - N_1}{N_2} \qquad CN_4 := N_4 + AC$$

$$BN_4 := \sqrt{N_4^2 + AB^2} \qquad EN_4 := \frac{N_4 \cdot CN_4}{BN_4}$$

$$BE := BN_4 - EN_4 \qquad BG := \frac{N_4 \cdot BE}{BN_4}$$

$$FG := \frac{AB \cdot (N_3 - BG)}{N_3} \qquad R := \frac{BG \cdot AB}{FG}$$

$R = 0.39539$



$N_1 = 1.00000$
$N_2 = 3.00000$
$N_3 = 2.00000$
$N_4 = 4.00000$
$R = -0.32787$

$$\frac{N_3 \cdot N_4 \cdot (N_2 + N_4 \cdot (N_1 - N_2))}{N_4 \cdot (N_2 \cdot N_4 - N_1 \cdot N_4 - N_2) + N_2 \cdot N_3 \cdot (N_4^2 + 1)} - R = 0.00000$$

Definitions.

$$R - \frac{N_3 \cdot N_4 \cdot (AC \cdot N_4 - 1)}{N_4 - N_3 - N_3 \cdot N_4^2 - AC \cdot N_4^2} = 0$$

$$R - \frac{N_3 \cdot N_4 \cdot [N_2 + N_4 \cdot (N_1 - N_2)]}{N_4 \cdot (N_2 \cdot N_4 - N_1 \cdot N_4 - N_2) + N_2 \cdot N_3 \cdot (N_4^2 + 1)} = 0$$

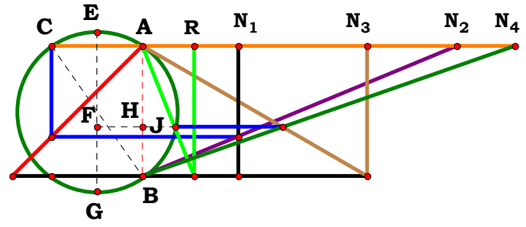
$$N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0 \quad N_4 - \frac{N_u}{D} = 0$$

$$R - \frac{N_u \cdot (A \cdot D - A \cdot N_u + B \cdot N_u)}{A \cdot (D^2 - C \cdot D + N_u^2) + C \cdot N_u \cdot (A - B)} = 0$$

$$N_1 - \frac{W}{m} = 0 \quad N_2 - \frac{X}{n} = 0 \quad N_3 - \frac{Y}{o} = 0 \quad N_4 - \frac{Z}{p} = 0$$

$$R - \frac{Y \cdot Z \cdot (W \cdot Z \cdot n - X \cdot Z \cdot m + X \cdot m \cdot p)}{X \cdot m \cdot (Y \cdot Z^2 + Y \cdot p^2 + Z^2 \cdot o - Z \cdot o \cdot p) - W \cdot Z^2 \cdot n \cdot o} = 0$$

4RST3AB6R1



$N_1 = 0.73353$
$N_2 = 2.40917$
$N_3 = 1.72621$
$N_4 = 2.85708$
$R = 0.39889$

Unit. $AB := 1$ Given. $N_1 := .73353$ $N_2 := 2.40917$ $N_3 := 1.72621$ $N_4 := 2.85708$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

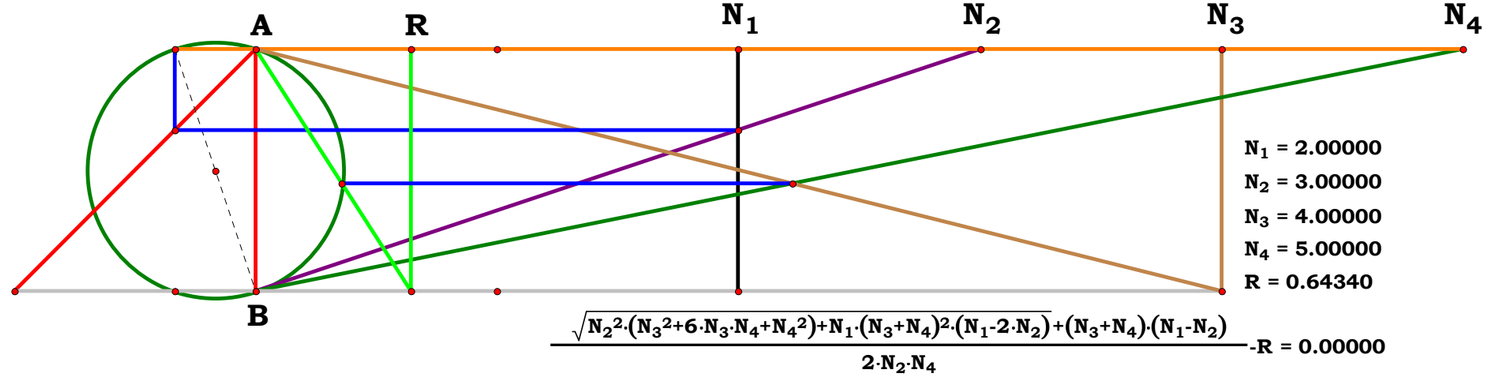
Descriptions.

$$AC := \frac{N_2 - N_1}{N_2} \qquad AH := \frac{AB \cdot N_4}{N_4 + N_3}$$

$$EG := \sqrt{AB^2 + AC^2} \qquad EF := AH + \frac{(EG - AB)}{2}$$

$$FJ := \sqrt{EF \cdot (EG - EF)} \qquad HJ := FJ - \frac{AC}{2}$$

$$R := \frac{HJ \cdot AB}{AH} \qquad R = 0.398896$$



$N_1 = 2.00000$
$N_2 = 3.00000$
$N_3 = 4.00000$
$N_4 = 5.00000$
$R = 0.64340$

$$\frac{\sqrt{N_2^2 \cdot (N_3^2 + 6 \cdot N_3 \cdot N_4 + N_4^2) + N_1 \cdot (N_3 + N_4)^2 \cdot (N_1 - 2 \cdot N_2)} + (N_3 + N_4) \cdot (N_1 - N_2)}{2 \cdot N_2 \cdot N_4} - R = 0.00000$$

Definitions.

$$R - \frac{\left[\sqrt{AC^2 \cdot N_3^2 + 2 \cdot AC^2 \cdot N_3 \cdot N_4 + AC^2 \cdot N_4^2 + 4 \cdot N_3 \cdot N_4} - AC \cdot \sqrt{(N_3 + N_4)^2}\right] \cdot (N_3 + N_4)}{2 \cdot N_4 \cdot \sqrt{(N_3 + N_4)^2}} = 0$$

$$R - \frac{\sqrt{N_2^2 \cdot (N_3^2 + 6 \cdot N_3 \cdot N_4 + N_4^2) + N_1 \cdot (N_3 + N_4)^2 \cdot (N_1 - 2 \cdot N_2)} + (N_3 + N_4) \cdot (N_1 - N_2)}{2 \cdot N_2 \cdot N_4} = 0$$

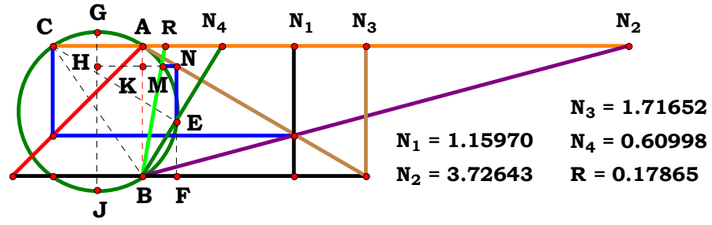
$$N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0 \quad N_4 - \frac{N_u}{D} = 0$$

$$R - \frac{\sqrt{(C^2 + D^2) \cdot (A - B)^2 + 2 \cdot C \cdot D \cdot (3 \cdot A^2 - 2 \cdot A \cdot B + B^2)} - (C + D) \cdot (A - B)}{2 \cdot A \cdot C} = 0$$

$$N_1 - \frac{W}{m} = 0 \quad N_2 - \frac{X}{n} = 0 \quad N_3 - \frac{Y}{o} = 0 \quad N_4 - \frac{Z}{p} = 0$$

$$R - \frac{\sqrt{(Y^2 \cdot p^2 + Z^2 \cdot o^2) \cdot (W \cdot n - X \cdot m)^2 + 2 \cdot Y \cdot Z \cdot o \cdot p \cdot (W^2 \cdot n^2 - 2 \cdot W \cdot X \cdot m \cdot n + 3 \cdot X^2 \cdot m^2)} + (Y \cdot p + Z \cdot o) \cdot (W \cdot n - X \cdot m)}{2 \cdot X \cdot Z \cdot m \cdot o} = 0$$

4RST3AB6R2



Unit. $AB := 1$ Given. $N_1 := 1.15970$ $N_2 := 3.72643$ $N_3 := 1.71652$ $N_4 := .60998$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

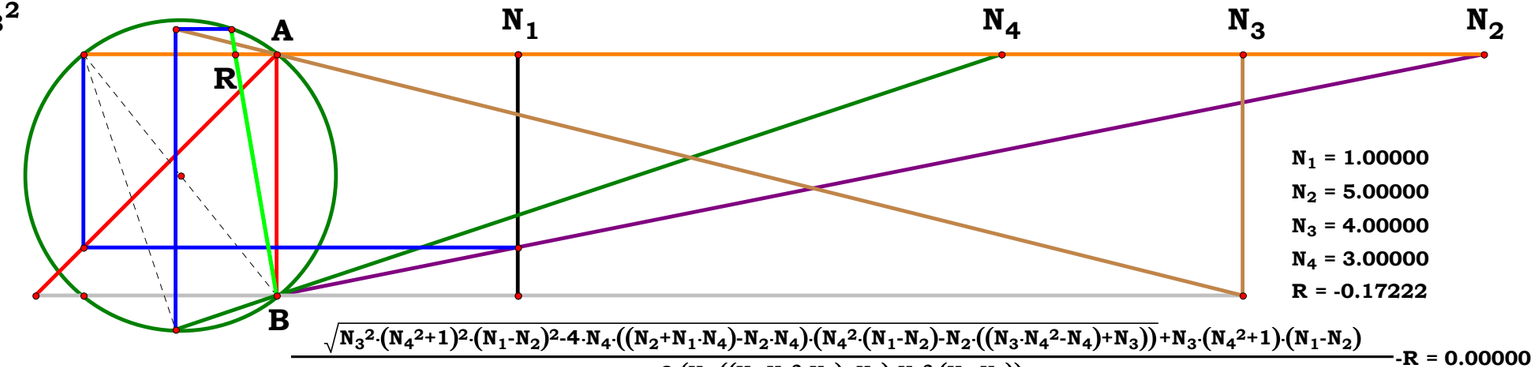
$AC := \frac{N_2 - N_1}{N_2}$ $CN_4 := N_4 + AC$ $BN_4 := \sqrt{N_4^2 + AB^2}$

$EN_4 := \frac{N_4 \cdot CN_4}{BN_4}$ $BF := \frac{N_4 \cdot (BN_4 - EN_4)}{BN_4}$

$AK := \frac{AB \cdot BF}{N_3}$ $GJ := \sqrt{AB^2 + AC^2}$

$GH := AK + \frac{GJ - AB}{2}$ $HM := \sqrt{GH \cdot (GJ - GH)}$

$KM := HM - \frac{AC}{2}$ $R := \frac{KM \cdot AB}{AB - AK}$ $R = 0.178653$



$$\frac{\sqrt{N_3^2 \cdot (N_4^2+1)^2 \cdot (N_1-N_2)^2 - 4 \cdot N_4 \cdot ((N_2+N_1 \cdot N_4)-N_2 \cdot N_4) \cdot (N_4^2 \cdot (N_1-N_2) - N_2 \cdot ((N_3 \cdot N_4^2 - N_4)+N_3))} + N_3 \cdot (N_4^2+1) \cdot (N_1-N_2)}{2 \cdot (N_2 \cdot ((N_3 \cdot N_4^2 - N_4)+N_3) - N_4^2 \cdot (N_1-N_2))} - R = 0.00000$$

Definitions.

$$R - \frac{N_3 \cdot (N_4^2+1) \cdot \left[AC \cdot \sqrt{\left[N_3 \cdot (N_4^2+1) \right]^2} - \sqrt{AC \cdot N_3 \cdot N_4^2 \cdot (2 \cdot AC \cdot N_3 - 4 \cdot N_4^2 + AC \cdot N_3 \cdot N_4^2 - 4) + AC^2 \cdot N_3^2 - 4 \cdot AC \cdot N_4^3 \cdot (AC \cdot N_4 - 2) + 4 \cdot N_3 \cdot N_4 \cdot (N_4^2+1) - 4 \cdot N_4^2} \right]}{2 \cdot \sqrt{\left[N_3 \cdot (N_4^2+1) \right]^2} \cdot (N_4 - N_3 - N_3 \cdot N_4^2 - AC \cdot N_4^2)} = 0$$

$$R - \frac{\sqrt{N_3^2 \cdot (N_4^2+1)^2 \cdot (N_1-N_2)^2 - 4 \cdot N_4^2 \cdot (N_2+N_1 \cdot N_4 - N_2 \cdot N_4)^2 + 4 \cdot N_2 \cdot N_3 \cdot N_4 \cdot (N_4^2+1) \cdot (N_2+N_1 \cdot N_4 - N_2 \cdot N_4)} + N_3 \cdot (N_4^2+1) \cdot (N_1-N_2)}{2 \cdot (N_2 \cdot N_4^2 - N_1 \cdot N_4^2 + N_2 \cdot N_3 - N_2 \cdot N_4 + N_2 \cdot N_3 \cdot N_4^2)} = 0$$

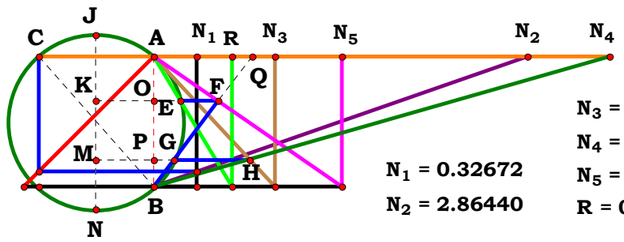
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{(D^2 + N_u^2) \cdot (A-B) - \sqrt{(D^2+N_u^2)^2 \cdot (A-B)^2 - 4 \cdot C^2 \cdot (A \cdot D - A \cdot N_u + B \cdot N_u)^2 + 4 \cdot A \cdot C \cdot (D^2+N_u^2) \cdot (A \cdot D - A \cdot N_u + B \cdot N_u)}}{2 \cdot (A \cdot C \cdot D - A \cdot N_u^2 - A \cdot D^2 - A \cdot C \cdot N_u + B \cdot C \cdot N_u)} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{\sqrt{Y^2 \cdot (Z^2+p^2)^2 \cdot (W \cdot n - X \cdot m)^2 + 4 \cdot Y \cdot X \cdot Z \cdot m \cdot o \cdot (Z^2+p^2) \cdot (W \cdot Z \cdot n - X \cdot Z \cdot m + X \cdot m \cdot p) - 4 \cdot Z^2 \cdot o^2 \cdot (W \cdot Z \cdot n - X \cdot Z \cdot m + X \cdot m \cdot p)^2} + Y \cdot (Z^2+p^2) \cdot (W \cdot n - X \cdot m)}{2 \cdot (X \cdot Y \cdot Z^2 \cdot m - W \cdot Z^2 \cdot n \cdot o + X \cdot Y \cdot m \cdot p^2 + X \cdot Z^2 \cdot m \cdot o - X \cdot Z \cdot m \cdot o \cdot p)} = 0$$

4RST3AB6R3



$N_1 = 0.32672$
$N_2 = 2.86440$
$N_3 = 0.93197$
$N_4 = 3.49634$
$N_5 = 1.44318$
$R = 0.60084$

Unit. $AB := 1$ **Given.** $N_1 := .32672$ $N_2 := 2.86440$ $N_3 := .93197$ $N_4 := 3.49634$ $N_5 := 1.44318$

Descriptions.

$$AC := \frac{N_2 - N_1}{N_2} \qquad BP := \frac{AB \cdot N_3}{N_3 + N_4}$$

$$JN := \sqrt{AB^2 + AC^2} \qquad JM := JN - \left(BP + \frac{JN - AB}{2}\right)$$

$$GM := \sqrt{JM \cdot (JN - JM)} \qquad PG := GM - \frac{AC}{2}$$

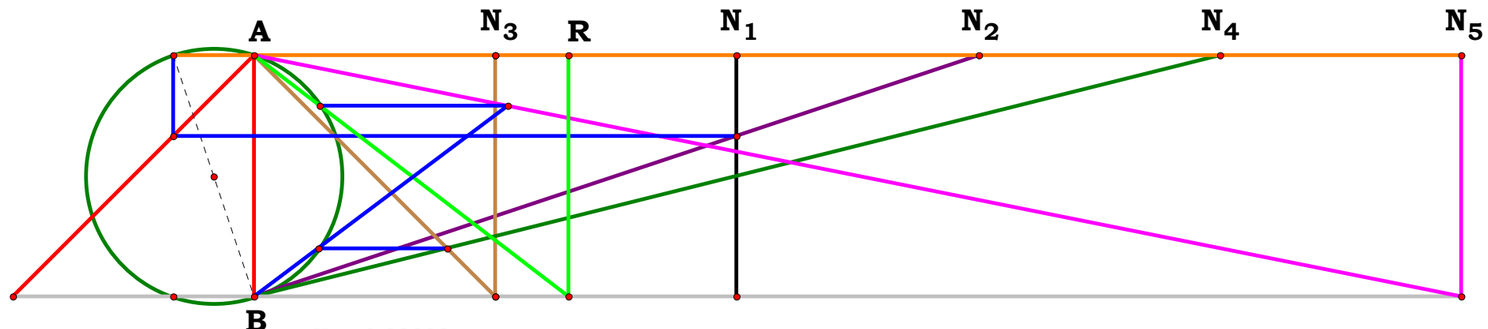
$$AQ := \frac{PG \cdot AB}{BP} \qquad AO := \frac{AB \cdot AQ}{AQ + N_5}$$

$$JK := AO + \frac{JN - AB}{2} \qquad EK := \sqrt{JK \cdot (JN - JK)}$$

$$EO := EK - \frac{AC}{2} \qquad AR := \frac{EO \cdot AB}{AO}$$

$AR = 0.600839$

Definitions.



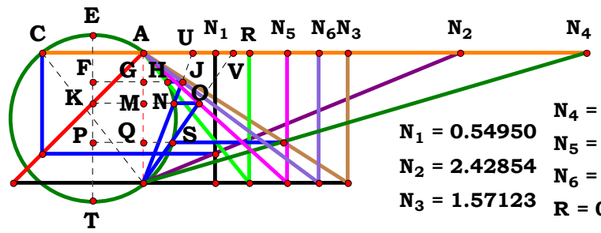
$N_1 = 2.00000$
$N_2 = 3.00000$
$N_3 = 1.00000$
$N_4 = 4.00000$
$N_5 = 5.00000$
$R = 1.30040$

$AB = 1.00000$
$AC = 0.33333$
$BP = 0.20000$
$JN = 1.05409$
$JM = 0.82705$
$GM = 0.43333$

$PG = 0.26667$
$AQ = 1.33333$
$AO = 0.21053$
$JK = 0.23757$
$EK = 0.44043$
$EO = 0.27377$

$AB \cdot EO$
$R - \frac{AB \cdot EO}{AO} = 0.00000$

4RST3AB6R4



$N_1 = 0.54950$ $N_2 = 2.42854$ $N_3 = 1.57123$ $N_4 = 3.39689$ $N_5 = 1.10418$ $N_6 = 1.34632$ $R = 0.81693$

Unit. $AB := 1$ **Given.** $N_1 := .54950$ $N_2 := 2.42854$ $N_3 := 1.57123$ $N_4 := 3.39689$ $N_5 := 1.10418$ $N_6 := 1.34632$

Descriptions.

$$AC := \frac{N_2 - N_1}{N_2} \qquad BQ := \frac{AB \cdot N_3}{N_3 + N_4}$$

$$ET := \sqrt{AB^2 + AC^2} \qquad EP := ET - \left(BQ + \frac{ET - AB}{2}\right)$$

$$PS := \sqrt{EP \cdot (ET - EP)} \qquad QS := PS - \frac{AC}{2}$$

$$AV := \frac{QS \cdot AB}{BQ} \qquad BM := \frac{AB \cdot N_5}{AV + N_5}$$

$$KT := BM + \frac{ET - AB}{2}$$

$$KN := \sqrt{KT \cdot (ET - KT)}$$

$$MN := KN - \frac{AC}{2}$$

$$AU := \frac{MN \cdot AB}{BM}$$

$$BG := \frac{AB \cdot N_6}{AU + N_6}$$

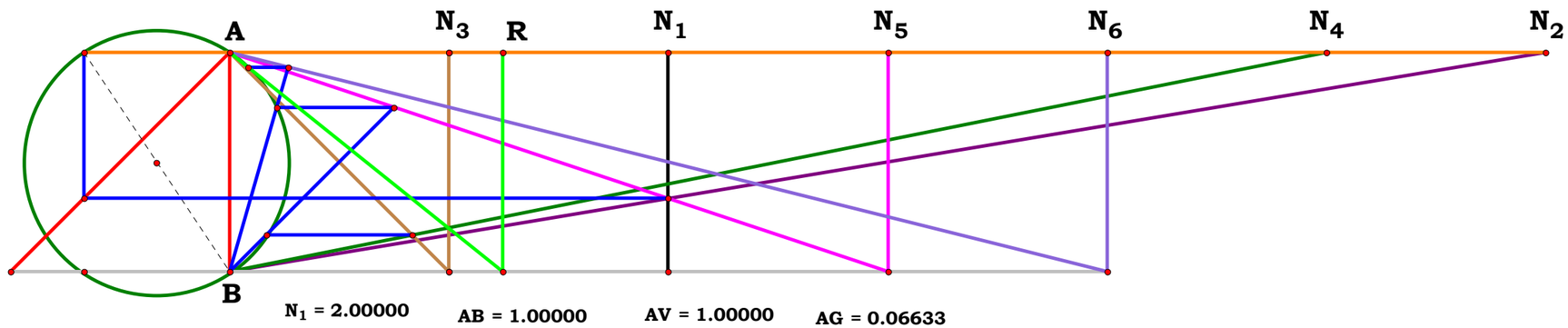
$$AG := AB - BG$$

$$EF := AG + \frac{ET - AB}{2}$$

$$FH := \sqrt{EF \cdot (ET - EF)}$$

$$GH := FH - \frac{AC}{2} \qquad AR := \frac{GH \cdot AB}{AG}$$

$AR = 0.816934$



$N_1 = 2.00000$ $N_2 = 6.00000$ $N_3 = 1.00000$ $N_4 = 5.00000$ $N_5 = 3.00000$ $N_6 = 4.00000$ $R = 1.24604$

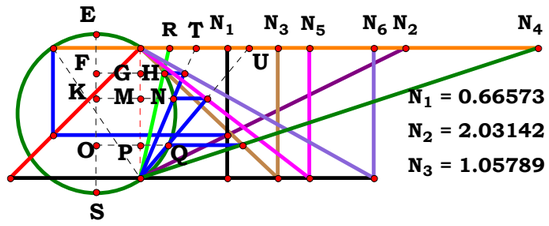
$AB = 1.00000$ $AC = 0.66667$ $BQ = 0.16667$ $ET = 1.20185$ $EP = 0.93426$ $PS = 0.50000$ $QS = 0.16667$

$AV = 1.00000$ $BM = 0.75000$ $KT = 0.85093$ $KN = 0.54645$ $MN = 0.21312$ $AU = 0.28416$ $BG = 0.93367$

$AG = 0.06633$ $EF = 0.16725$ $FH = 0.41598$ $GH = 0.08265$ $R - \frac{AB \cdot GH}{AG} = 0.00000$

Definitions.

4RST3AB6R5



$N_4 = 3.05079$
$N_1 = 0.66573$
$N_2 = 2.03142$
$N_3 = 1.05789$
$N_5 = 1.29790$
$N_6 = 1.79187$
$R = 0.22341$

Unit. $AB := 1$ **Given.** $N_1 := .66573$ $N_2 := 2.03142$ $N_3 := 1.05789$ $N_4 := 3.05079$ $N_5 := 1.29790$ $N_6 := 1.79187$

Descriptions.

$$AC := \frac{N_2 - N_1}{N_2} \qquad BP := \frac{AB \cdot N_3}{N_3 + N_4}$$

$$ES := \sqrt{AB^2 + AC^2} \qquad OS := BP + \frac{ES - AB}{2}$$

$$OQ := \sqrt{OS \cdot (ES - OS)} \qquad PQ := OQ - \frac{AC}{2}$$

$$AU := \frac{PQ \cdot AB}{BP} \qquad BM := \frac{AB \cdot N_5}{N_5 + AU}$$

$$KS := BM + \frac{ES - AB}{2}$$

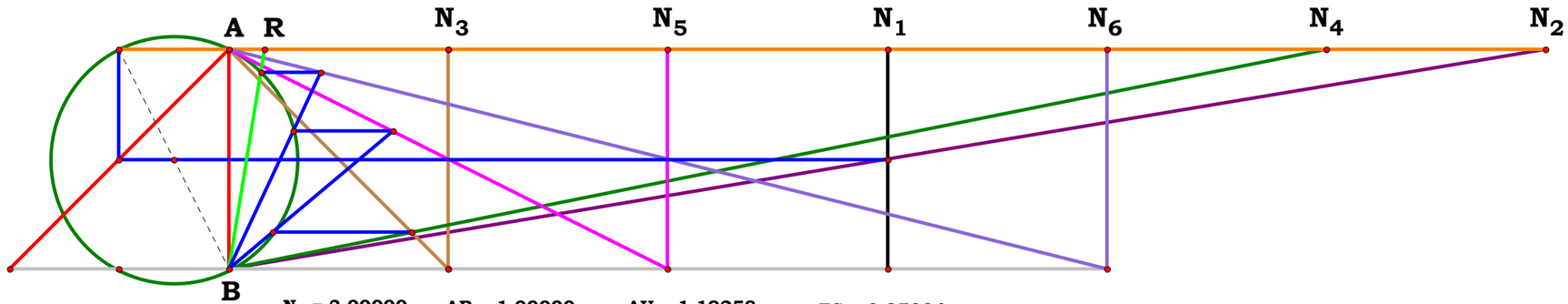
$$KN := \sqrt{KS \cdot (ES - KS)}$$

$$MN := KN - \frac{AC}{2} \qquad AT := \frac{MN \cdot AB}{BM}$$

$$BG := \frac{N_6 \cdot AB}{N_6 + AT} \qquad FS := BG + \frac{ES - AB}{2}$$

$$FH := \sqrt{FS \cdot (ES - FS)} \qquad GH := FH - \frac{AC}{2}$$

$$R := \frac{GH \cdot AB}{BG} \qquad R = 0.223407$$



$N_1 = 3.00000$
$N_2 = 6.00000$
$N_3 = 1.00000$
$N_4 = 5.00000$
$N_5 = 2.00000$
$N_6 = 4.00000$
$R = 0.16288$

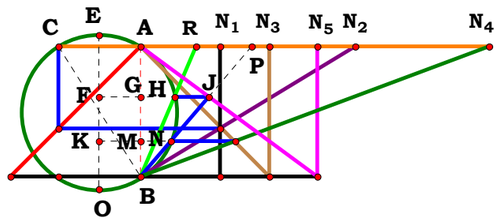
$AB = 1.00000$
$AC = 0.50000$
$BP = 0.16667$
$ES = 1.11803$
$OS = 0.22568$
$OQ = 0.44876$
$PQ = 0.19876$

$AU = 1.19258$
$BM = 0.62645$
$KS = 0.68547$
$KN = 0.54453$
$MN = 0.29453$
$AT = 0.47015$
$BG = 0.89482$

$FS = 0.95384$
$FH = 0.39574$
$GH = 0.14574$
$R - \frac{AB \cdot GH}{BG} = 0.00000$

Definitions.

4RST3AB6R6



$N_1 = 0.60761$
$N_2 = 1.64399$
$N_3 = 0.99009$
$N_4 = 2.67305$
$N_5 = 1.35601$
R = 0.43013

Unit. $AB := 1$ **Given.** $N_1 := .60761$ $N_2 := 1.64399$ $N_3 := .99009$ $N_4 := 2.67305$ $N_5 := 1.35601$

Descriptions.

$$AC := \frac{N_2 - N_1}{N_2} \qquad BM := \frac{N_3 \cdot AB}{N_3 + N_4}$$

$$EO := \sqrt{AB^2 + AC^2} \qquad KO := BM + \frac{EO - AB}{2}$$

$$KN := \sqrt{KO \cdot (EO - KO)} \qquad MN := KN - \frac{AC}{2}$$

$$AP := \frac{MN \cdot AB}{BM} \qquad BG := \frac{N_5 \cdot AB}{AP + N_5}$$

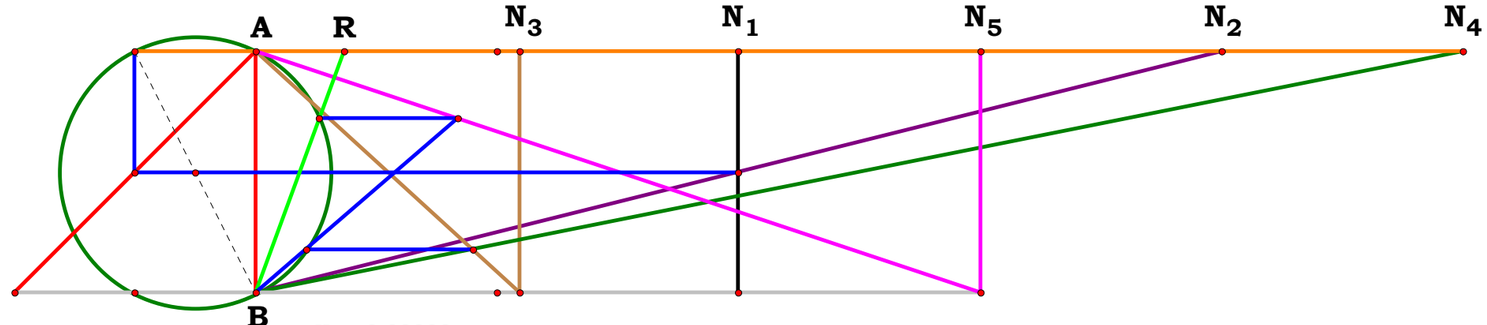
$$FO := BG + \frac{EO - AB}{2}$$

$$FH := \sqrt{FO \cdot (EO - FO)}$$

$$GH := FH - \frac{AC}{2}$$

$$R := \frac{GH \cdot AB}{BG}$$

$R = 0.430132$



$N_1 = 2.00000$
$N_2 = 4.00000$
$N_3 = 1.09412$
$N_4 = 5.00000$
$N_5 = 3.00000$
R = 0.36503

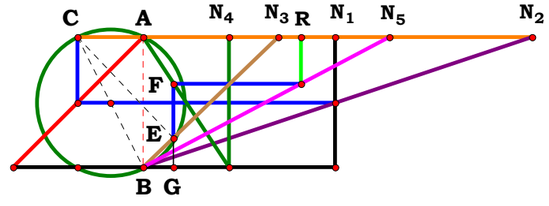
AB = 1.00000
AC = 0.50000
BM = 0.17954
EO = 1.11803
KO = 0.23855
KN = 0.45804

MN = 0.20804
AP = 1.15878
BG = 0.72137
FO = 0.78038
FH = 0.51332
GH = 0.26332

AB·GH
$R - \frac{AB \cdot GH}{BG} = 0.00000$

Definitions.

4RST3AB6R7



$N_1 = 1.46965$
$N_2 = 2.98063$
$N_3 = 1.03851$
$N_4 = 0.65840$
$N_5 = 1.88873$
$R = 1.21000$

Unit. $AB := 1$ Given. $N_1 := 1.46965$ $N_2 := 2.98063$ $N_3 := 1.03851$ $N_4 := .65840$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $N_5 := 1.88873$

$V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $l := \frac{V}{N_1}$ $m := \frac{W}{N_2}$ $n := \frac{X}{N_3}$ $o := \frac{Y}{N_4}$ $p := \frac{Z}{N_5}$

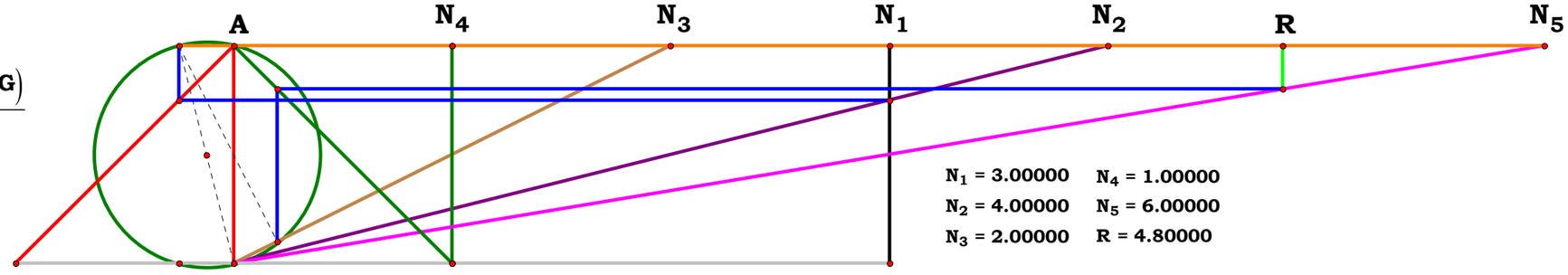
Descriptions.

$$AC := \frac{N_2 - N_1}{N_2} \qquad CN_3 := N_3 + AC$$

$$BN_3 := \sqrt{N_3^{\,2} + AB^2} \qquad EN_3 := \frac{N_3 \cdot CN_3}{BN_3}$$

$$BG := \frac{N_3 \cdot (BN_3 - EN_3)}{BN_3} \qquad FG := \frac{AB \cdot (N_4 - BG)}{N_4}$$

$$R := \frac{N_5 \cdot FG}{AB} \qquad R = 1.209993$$



$N_1 = 3.00000$ $N_4 = 1.00000$
$N_2 = 4.00000$ $N_5 = 6.00000$
$N_3 = 2.00000$ $R = 4.80000$

Definitions.

B

$$R - \frac{N_5 \cdot \left(N_4 - N_3 + N_3^{\,2} \cdot N_4 + AC \cdot N_3^{\,2}\right)}{N_4 \cdot \left(N_3^{\,2} + 1\right)} = 0$$

$$\frac{N_2 \cdot N_5 \cdot ((N_4 - N_3) + N_3^{\,2} \cdot N_4 + N_3^{\,2}) - N_1 \cdot N_3^{\,2} \cdot N_5}{N_2 \cdot N_4 \cdot (N_3^{\,2} + 1)} - R = 0.00000$$

$$R - \frac{N_2 \cdot N_5 \cdot \left(N_4 - N_3 + N_3^{\,2} \cdot N_4 + N_3^{\,2}\right) - N_1 \cdot N_3^{\,2} \cdot N_5}{N_2 \cdot N_4 \cdot \left(N_3^{\,2} + 1\right)} = 0$$

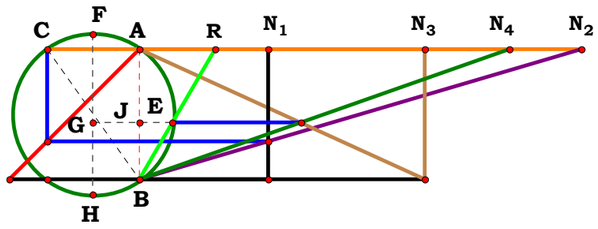
$$N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0 \quad N_4 - \frac{N_u}{D} = 0 \quad N_5 - \frac{N_u}{E} = 0$$

$$R - \frac{A \cdot C \cdot N_u \cdot (C - D) + N_u \cdot \left[N_u \cdot \left[D \cdot (A - B) + A \cdot N_u\right]\right]}{A \cdot E \cdot \left(C^2 + N_u^{\,2}\right)} = 0$$

$$N_1 - \frac{V}{l} = 0 \quad N_2 - \frac{W}{m} = 0 \quad N_3 - \frac{X}{n} = 0 \quad N_4 - \frac{Y}{o} = 0 \quad N_5 - \frac{Z}{p} = 0$$

$$R - \frac{W \cdot Y \cdot Z \cdot l \cdot \left(X^2 + n^2\right) - X \cdot Z \cdot o \cdot (V \cdot X \cdot m - W \cdot X \cdot l + W \cdot l \cdot n)}{W \cdot Y \cdot l \cdot p \cdot \left(X^2 + n^2\right)} = 0$$

4RST3AB6R8



$N_1 = 0.98536$
$N_2 = 3.38743$
$N_3 = 2.19112$
$N_4 = 2.83771$
$R = 0.58528$

Unit. $AB := 1$ Given. $N_1 := .98536$ $N_2 := 3.38743$ $N_3 := 2.19112$ $N_4 := 2.83771$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

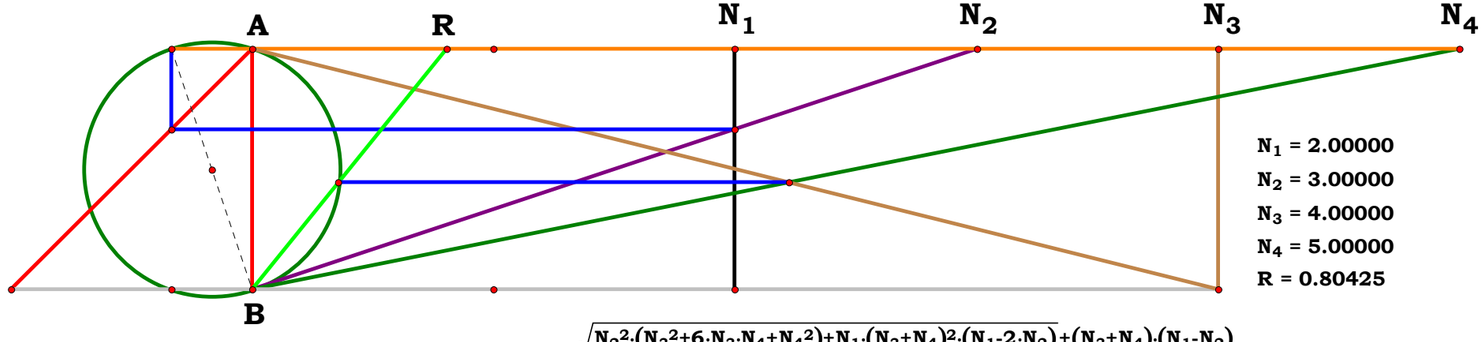
Descriptions.

$AC := \frac{N_2 - N_1}{N_2}$ $BJ := \frac{AB \cdot N_3}{N_3 + N_4}$

$FH := \sqrt{AB^2 + AC^2}$ $GH := BJ + \frac{FH - AB}{2}$

$GE := \sqrt{GH \cdot (FH - GH)}$ $JE := GE - \frac{AC}{2}$

$R := \frac{JE \cdot AB}{BJ}$ $R = 0.585284$



$N_1 = 2.00000$
$N_2 = 3.00000$
$N_3 = 4.00000$
$N_4 = 5.00000$
$R = 0.80425$

$\frac{\sqrt{N_2^2 \cdot (N_3^2 + 6 \cdot N_3 \cdot N_4 + N_4^2) + N_1 \cdot (N_3 + N_4)^2 \cdot (N_1 - 2 \cdot N_2)} + (N_3 + N_4) \cdot (N_1 - N_2)}{2 \cdot N_2 \cdot N_3} - R = 0.00000$

Definitions.

$$R - \frac{\left[\sqrt{AC^2 \cdot N_3^2 + 2 \cdot AC^2 \cdot N_3 \cdot N_4 + AC^2 \cdot N_4^2 + 4 \cdot N_3 \cdot N_4} - AC \cdot \sqrt{(N_3 + N_4)^2}\right] \cdot (N_3 + N_4)}{2 \cdot N_3 \cdot \sqrt{(N_3 + N_4)^2}} = 0$$

$$R - \frac{\sqrt{N_2^2 \cdot (N_3^2 + 6 \cdot N_3 \cdot N_4 + N_4^2) + N_1 \cdot (N_3 + N_4)^2 \cdot (N_1 - 2 \cdot N_2)} + (N_3 + N_4) \cdot (N_1 - N_2)}{2 \cdot N_2 \cdot N_3} = 0$$

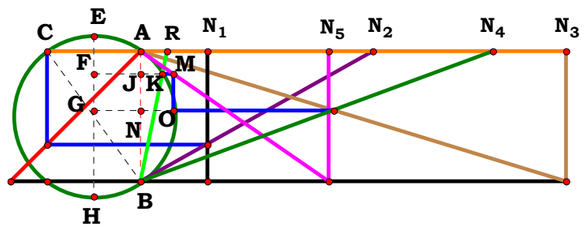
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{\sqrt{(C^2 + D^2) \cdot (A - B)^2 + 2 \cdot C \cdot D \cdot (3 \cdot A^2 - 2 \cdot A \cdot B + B^2)} - A \cdot (C + D) + B \cdot (C + D)}{2 \cdot A \cdot D} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{\sqrt{W \cdot n \cdot (Y + N_4 \cdot o)^2 \cdot (W \cdot n - 2 \cdot X \cdot m) + X^2 \cdot m^2 \cdot (N_4^2 \cdot o^2 + 6 \cdot N_4 \cdot Y \cdot o + Y^2)} + (Y + N_4 \cdot o) \cdot (W \cdot n - X \cdot m)}{2 \cdot X \cdot Y \cdot m} = 0$$

4RST3AB6R9



N_1 = 0.51075
N_2 = 1.77959
N_3 = 3.26624
N_4 = 2.70210
N_5 = 1.44318
R = 0.20164

Unit. $AB := 1$ **Given.** $N_1 := .51075$ $N_2 := 1.77959$ $N_3 := 3.26624$ $N_4 := 2.70210$ $N_5 := 1.44318$

Descriptions.

$$AC := \frac{N_2 - N_1}{N_2} \qquad EH := \sqrt{AB^2 + AC^2}$$

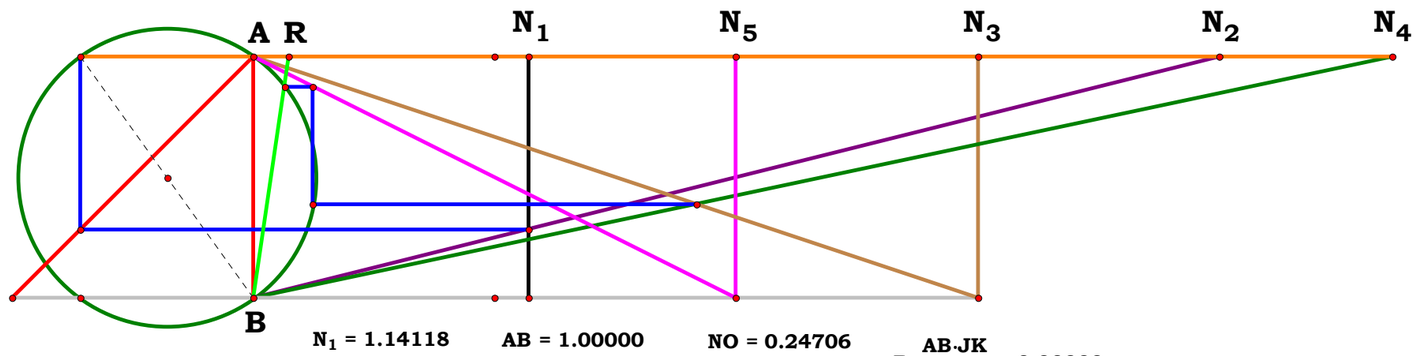
$$BN := \frac{AB \cdot N_3}{N_3 + N_4} \qquad GH := BN + \frac{EH - AB}{2}$$

$$GO := \sqrt{GH \cdot (EH - GH)} \qquad NO := GO - \frac{AC}{2}$$

$$BK := \frac{AB \cdot (N_5 - NO)}{N_5} \qquad FH := BK + \frac{EH - AB}{2}$$

$$FK := \sqrt{FH \cdot (EH - FH)} \qquad JK := FK - \frac{AC}{2}$$

$$R := \frac{JK \cdot AB}{BK} \qquad R = 0.201637$$



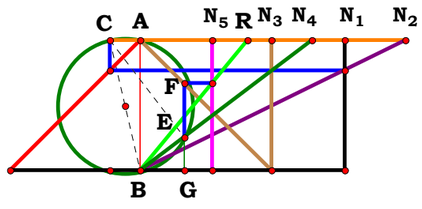
N_1 = 1.14118
N_2 = 4.00000
N_3 = 3.00000
N_4 = 4.71764
N_5 = 2.00000
R = 0.14652

AB = 1.00000
AC = 0.71470
EH = 1.22915
BN = 0.38872
GH = 0.50329
GO = 0.60441

NO = 0.24706
BK = 0.87647
FH = 0.99104
FK = 0.48577
JK = 0.12842

$R - \frac{AB \cdot JK}{BK} = 0.00000$

4RST3AB6R10



$N_1 = 1.56650$
$N_2 = 2.03142$
$N_3 = 1.00946$
$N_4 = 1.31704$
$N_5 = 0.55209$
$R = 0.82809$

Unit. $AB := 1$ Given. $N_1 := 1.56650$ $N_2 := 2.03142$ $N_3 := 1.00946$ $N_4 := 1.31740$ $N_5 := .55209$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$

$V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $l := \frac{V}{N_1}$ $m := \frac{W}{N_2}$ $n := \frac{X}{N_3}$ $o := \frac{Y}{N_4}$ $p := \frac{Z}{N_5}$

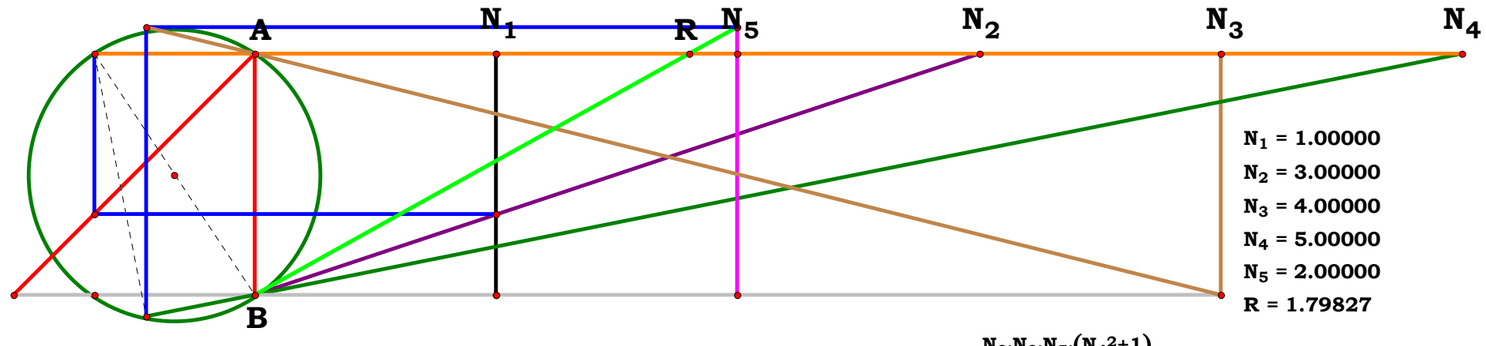
Descriptions.

$$AC := \frac{N_2 - N_1}{N_2} \qquad CN_4 := N_4 + AC$$

$$BN_4 := \sqrt{N_4^2 + AB^2} \qquad EN_4 := \frac{N_4 \cdot CN_4}{BN_4}$$

$$BG := N_4 \cdot \frac{(BN_4 - EN_4)}{BN_4} \qquad FG := AB \cdot \frac{(N_3 - BG)}{N_3}$$

$$R := \frac{N_5 \cdot AB}{FG} \qquad R = 0.82801$$



$N_1 = 1.00000$
$N_2 = 3.00000$
$N_3 = 4.00000$
$N_4 = 5.00000$
$N_5 = 2.00000$
$R = 1.79827$

$$\frac{N_2 \cdot N_3 \cdot N_5 \cdot (N_4^2+1)}{N_4^2 \cdot ((N_2-N_1)+N_2 \cdot N_3)+N_2 \cdot (N_3-N_4)} - R = 0.00000$$

Definitions.

$$R - \frac{N_3 \cdot N_5 \cdot (N_4^2 + 1)}{N_3 - N_4 + N_3 \cdot N_4^2 + AC \cdot N_4^2} = 0$$

$$R - \frac{N_2 \cdot N_3 \cdot N_5 \cdot (N_4^2 + 1)}{(N_2 - N_1 + N_2 \cdot N_3) \cdot N_4^2 + N_2 \cdot (N_3 - N_4)} = 0$$

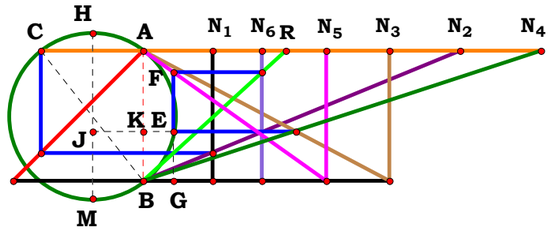
$$N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0 \quad N_4 - \frac{N_u}{D} = 0 \quad N_5 - \frac{N_u}{E} = 0$$

$$R - \frac{A \cdot N_u \cdot (D^2 + N_u^2)}{E \cdot (A \cdot D^2 + A \cdot N_u^2 - A \cdot C \cdot D + A \cdot C \cdot N_u - B \cdot C \cdot N_u)} = 0$$

$$N_1 - \frac{V}{l} = 0 \quad N_2 - \frac{W}{m} = 0 \quad N_3 - \frac{X}{n} = 0 \quad N_4 - \frac{Y}{o} = 0 \quad N_5 - \frac{Z}{p} = 0$$

$$R - \frac{W \cdot X \cdot Z \cdot l \cdot (Y^2 + o^2)}{p \cdot [W \cdot l \cdot (X \cdot Y^2 + X \cdot o^2 + Y^2 \cdot n - Y \cdot n \cdot o) - V \cdot Y^2 \cdot m \cdot n]} = 0$$

4RST3AB6R11



$N_1 = 0.53013$
$N_2 = 2.42854$
$N_3 = 1.89086$
$N_4 = 3.05079$
$N_5 = 1.40444$
$N_6 = 0.91046$
$R = 1.09141$

Unit. $AB := 1$ Given. $N_1 := .53013$ $N_2 := 2.42854$ $N_3 := 1.89086$ $N_4 := 3.05079$ $N_5 := 1.40444$ $N_6 := .91046$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $F := \frac{N_u}{N_6}$

Descriptions.

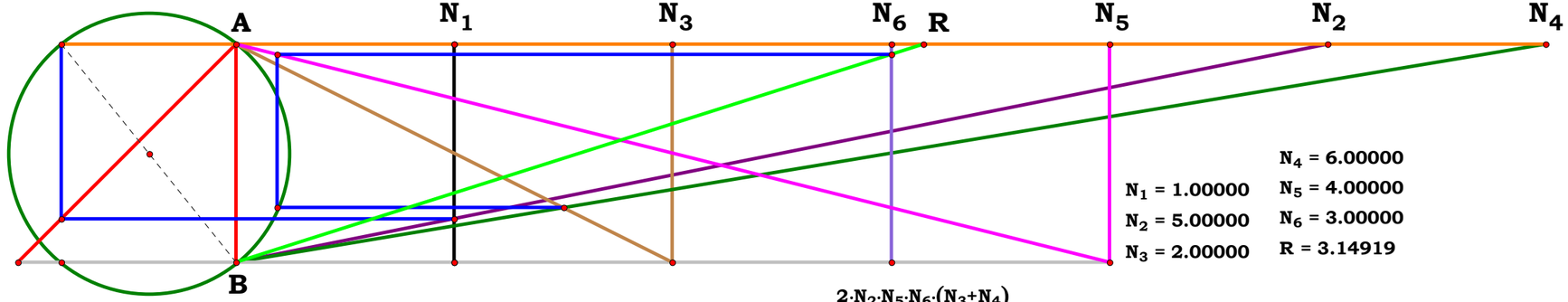
$AC := \frac{N_2 - N_1}{N_2}$ $EG := \frac{N_3 \cdot AB}{N_3 + N_4}$ $HM := \sqrt{AB^2 + AC^2}$

$JM := EG + \frac{HM - AB}{2}$ $JE := \sqrt{JM \cdot (HM - JM)}$

$BG := JE - \frac{AC}{2}$ $FG := \frac{AB \cdot (N_5 - BG)}{N_5}$

$R := \frac{N_6 \cdot AB}{FG}$ $R = 1.091401$

$U := 18$ $V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $k := \frac{U}{N_1}$ $l := \frac{V}{N_2}$ $m := \frac{W}{N_3}$ $n := \frac{X}{N_4}$ $o := \frac{Y}{N_5}$ $p := \frac{Z}{N_6}$



$N_1 = 1.00000$
$N_2 = 5.00000$
$N_3 = 2.00000$
$N_4 = 6.00000$
$N_5 = 4.00000$
$N_6 = 3.00000$
$R = 3.14919$

$$\frac{2 \cdot N_2 \cdot N_5 \cdot N_6 \cdot (N_3 + N_4)}{(N_3 + N_4) \cdot ((N_2 - N_1) + 2 \cdot N_2 \cdot N_5) - \sqrt{(N_3^2 + N_4^2) \cdot (N_1 - N_2)^2 + 2 \cdot N_3 \cdot N_4 \cdot ((N_1^2 - 2 \cdot N_1 \cdot N_2) + 3 \cdot N_2^2)}} - R = 0.00000$$

Definitions.

$$R - \frac{2 \cdot N_5 \cdot N_6 \cdot \sqrt{(N_3 + N_4)^2}}{\sqrt{(N_3 + N_4)^2} \cdot (AC + 2 \cdot N_5) - \sqrt{AC^2 \cdot (N_3 + N_4)^2 + 4 \cdot N_3 \cdot N_4}} = 0$$

$$R - \frac{2 \cdot N_2 \cdot N_5 \cdot N_6 \cdot (N_3 + N_4)}{(N_3 + N_4) \cdot (N_2 - N_1 + 2 \cdot N_2 \cdot N_5) - \sqrt{(N_3^2 + N_4^2) \cdot (N_1 - N_2)^2 + 2 \cdot N_3 \cdot N_4 \cdot (N_1^2 - 2 \cdot N_1 \cdot N_2 + 3 \cdot N_2^2)}} = 0$$

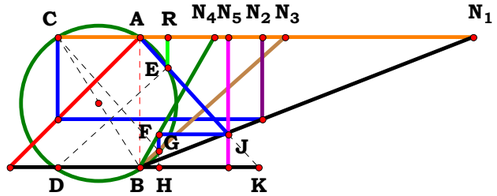
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$ $N_6 - \frac{N_u}{F} = 0$

$$R - \frac{2 \cdot A \cdot N_u^2 \cdot (C + D)}{2 \cdot N_u \cdot A \cdot F \cdot (C + D) + F \cdot E \cdot \left[(C + D) \cdot (A - B) - \sqrt{(C^2 + D^2) \cdot (A - B)^2 + 2 \cdot C \cdot D \cdot (3 \cdot A^2 - 2 \cdot A \cdot B + B^2)} \right]} = 0$$

$N_1 - \frac{U}{k} = 0$ $N_2 - \frac{V}{l} = 0$ $N_3 - \frac{W}{m} = 0$ $N_4 - \frac{X}{n} = 0$ $N_5 - \frac{Y}{o} = 0$ $N_6 - \frac{Z}{p} = 0$

$$R - \frac{2 \cdot V \cdot Y \cdot Z \cdot k \cdot (W \cdot n + X \cdot m)}{p \cdot \left[(W \cdot n + X \cdot m) \cdot (2 \cdot V \cdot Y \cdot k - U \cdot l \cdot o + V \cdot k \cdot o) - o \cdot \sqrt{(W^2 \cdot n^2 + X^2 \cdot m^2) \cdot (U \cdot l - V \cdot k)^2 + 2 \cdot W \cdot X \cdot m \cdot n \cdot (U^2 \cdot l^2 - 2 \cdot U \cdot V \cdot k \cdot l + 3 \cdot V^2 \cdot k^2)} \right]} = 0$$

4RST4AB1R0



$N_1 = 2.55445$
$N_2 = 0.93693$
$N_3 = 1.11600$
$N_4 = 0.57123$
$N_5 = 0.67800$
$R = 0.21085$

Unit. $AB := 1$ Given. $N_1 := 2.55445$ $N_2 := .93693$ $N_3 := 1.11600$

$N_4 := .57123$ $N_5 := .67800$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$

$V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $l := \frac{V}{N_1}$ $m := \frac{W}{N_2}$ $n := \frac{X}{N_3}$ $o := \frac{Y}{N_4}$ $p := \frac{Z}{N_5}$

Descriptions.

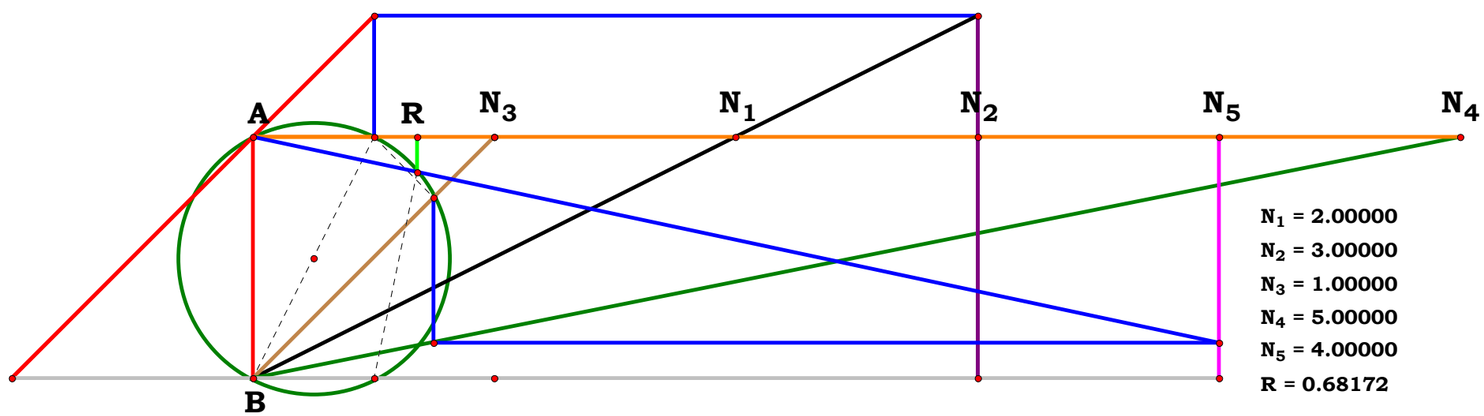
$AC := \frac{N_1 - N_2}{N_1}$ $BN_3 := \sqrt{AB^2 + N_3^2}$

$GN_3 := \frac{N_3 \cdot (N_3 + AC)}{BN_3}$ $BG := BN_3 - GN_3$

$BH := \frac{N_3 \cdot BG}{BN_3}$ $FH := \frac{BH}{N_4}$ $BK := \frac{N_5}{AB - FH}$

$AK := \sqrt{AB^2 + BK^2}$ $EK := \frac{BK \cdot (BK + AC)}{AK}$

$AE := AK - EK$ $R := \frac{BK \cdot AE}{AK}$ $R = 0.210851$



$N_1 = 2.00000$
$N_2 = 3.00000$
$N_3 = 1.00000$
$N_4 = 5.00000$
$N_5 = 4.00000$
$R = 0.68172$

Definitions.

$$\frac{(N_1 \cdot N_4 \cdot N_5 \cdot (N_3^2+1)) \cdot (N_3^2 \cdot ((N_1-N_2)+N_1 \cdot N_4) - N_1 \cdot (N_3-N_4)) - (N_1 \cdot N_4^2 \cdot N_5^2 \cdot (N_3^2+1)^2 \cdot (N_1-N_2))}{(N_1 \cdot N_4 \cdot N_5 \cdot (N_3^2+1))^2 + (N_1 \cdot N_4 \cdot (N_3^2+1))^2 + (2 \cdot N_1 \cdot N_3 \cdot N_4 \cdot (N_3^2+1) \cdot (N_1 \cdot N_3 - N_1 - N_2 \cdot N_3)) + (N_3 \cdot (N_1 \cdot N_3 - N_1 - N_2 \cdot N_3))^2} - R = 0.00000$$

$$R - \frac{N_4 \cdot N_5 \cdot (N_3^2 + 1) \cdot (N_4 - N_3 + N_3^2 \cdot N_4 + N_3^2 \cdot AC - N_4 \cdot N_5 \cdot AC - N_3^2 \cdot N_4 \cdot N_5 \cdot AC)}{N_3^4 \cdot N_4^2 \cdot N_5^2 + N_3^4 \cdot N_4^2 + 2 \cdot N_3^4 \cdot N_4 \cdot AC + N_3^4 \cdot AC^2 - 2 \cdot N_3^3 \cdot N_4 - 2 \cdot N_3^3 \cdot AC + 2 \cdot N_3^2 \cdot N_4^2 \cdot N_5^2 + 2 \cdot N_3^2 \cdot N_4^2 + 2 \cdot N_3^2 \cdot N_4 \cdot AC + N_3^2 - 2 \cdot N_3 \cdot N_4 + N_4^2 \cdot N_5^2 + N_4^2} = 0$$

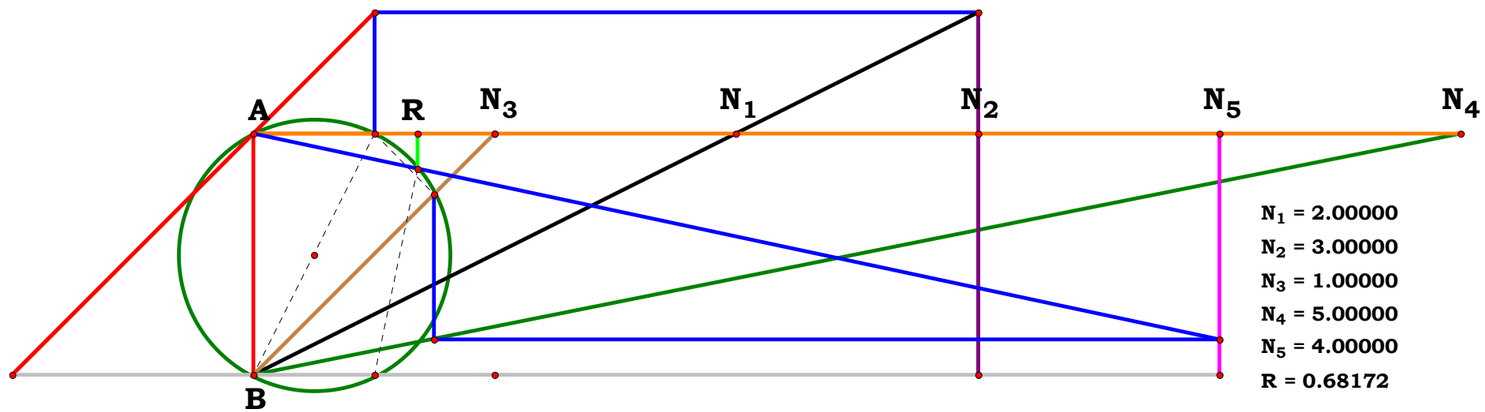
$$R - \frac{N_1 \cdot N_4 \cdot N_5 \cdot (N_3^2 + 1) \cdot [N_3^2 \cdot (N_1 - N_2 + N_1 \cdot N_4) - N_1 \cdot (N_3 - N_4)] - N_1 \cdot N_4^2 \cdot N_5^2 \cdot (N_3^2 + 1)^2 \cdot (N_1 - N_2)}{N_5^2 \cdot N_1^2 \cdot N_4^2 \cdot (N_3^2 + 1)^2 + N_1^2 \cdot N_4^2 \cdot (N_3^2 + 1)^2 + 2 \cdot N_1 \cdot N_3 \cdot N_4 \cdot (N_3^2 + 1) \cdot (N_1 \cdot N_3 - N_1 - N_2 \cdot N_3) + N_3^2 \cdot (N_1 \cdot N_3 - N_1 - N_2 \cdot N_3)^2} = 0$$

$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$

$$R - \frac{E \cdot B \cdot N_u \cdot (C^2 + N_u^2) \cdot [[N_u \cdot (B - A) - B \cdot C] \cdot D + B \cdot (C^2 + N_u^2)] + B \cdot N_u^2 \cdot (C^2 + N_u^2)^2 \cdot (A - B)}{[D \cdot [B \cdot C + N_u \cdot (A - B)] - [B \cdot (C^2 + N_u^2)]]^2 \cdot E^2 + B^2 \cdot N_u^2 \cdot (C^2 + N_u^2)^2} = 0$$

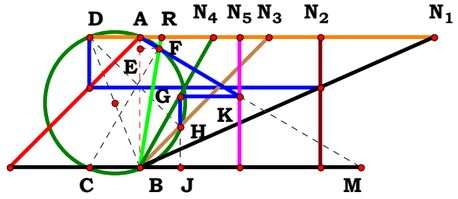
$$N_1 - \frac{V}{l} = 0 \quad N_2 - \frac{W}{m} = 0 \quad N_3 - \frac{X}{n} = 0 \quad N_4 - \frac{Y}{o} = 0 \quad N_5 - \frac{Z}{p} = 0$$

$$R - \frac{V \cdot Y \cdot Z \cdot m \cdot \left(X^2 + n^2\right) \cdot \left[Z \cdot Y \cdot \left(X^2 + n^2\right) \cdot (W \cdot l - V \cdot m) + X^2 \cdot p \cdot (V \cdot Y \cdot m + V \cdot m \cdot o - W \cdot l \cdot o) + V \cdot m \cdot n \cdot p \cdot (Y \cdot n - X \cdot o)\right]}{V^2 \cdot Y^2 \cdot m^2 \cdot \left(X^2 + n^2\right)^2 \cdot \left(Z^2 + p^2\right) + 2 \cdot Y \cdot V \cdot X \cdot m \cdot o \cdot p^2 \cdot \left(X^2 + n^2\right) \cdot (V \cdot X \cdot m - W \cdot X \cdot l - V \cdot m \cdot n) + X^2 \cdot o^2 \cdot p^2 \cdot (V \cdot X \cdot m - W \cdot X \cdot l - V \cdot m \cdot n)^2} = 0$$



$$\frac{(N_1 \cdot N_4 \cdot N_5 \cdot (N_3{}^2+1)) \cdot (N_3{}^2 \cdot ((N_1-N_2)+N_1 \cdot N_4)-N_1 \cdot (N_3-N_4))-(N_1 \cdot N_4{}^2 \cdot N_5{}^2 \cdot (N_3{}^2+1)^2 \cdot (N_1-N_2))}{(N_1 \cdot N_4 \cdot N_5 \cdot (N_3{}^2+1))^2+(N_1 \cdot N_4 \cdot (N_3{}^2+1))^2+(2 \cdot N_1 \cdot N_3 \cdot N_4 \cdot (N_3{}^2+1) \cdot (N_1 \cdot N_3-N_1-N_2 \cdot N_3))+(N_3 \cdot (N_1 \cdot N_3-N_1-N_2 \cdot N_3))^2} - R = 0.00000$$

4RST4AB1R2



$N_1 = 2.25419$
$N_2 = 1.38247$
$N_3 = 0.99009$
$N_4 = 0.56155$
$N_5 = 0.76518$
$R = 0.16461$

Unit. $AB := 1$ **Given.** $N_1 := 2.25419$ $N_2 := 1.38247$ $N_3 := .99009$ $N_4 := .56155$ $N_5 := .76518$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$

$V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $l := \frac{V}{N_1}$ $m := \frac{W}{N_2}$ $n := \frac{X}{N_3}$ $o := \frac{Y}{N_4}$ $p := \frac{Z}{N_5}$

Descriptions.

$$AD := \frac{N_1 - N_2}{N_1} \qquad BN_3 := \sqrt{AB^2 + N_3^2} \qquad HN_3 := \frac{N_3 \cdot (N_3 + AD)}{BN_3} \qquad BH := BN_3 - HN_3$$

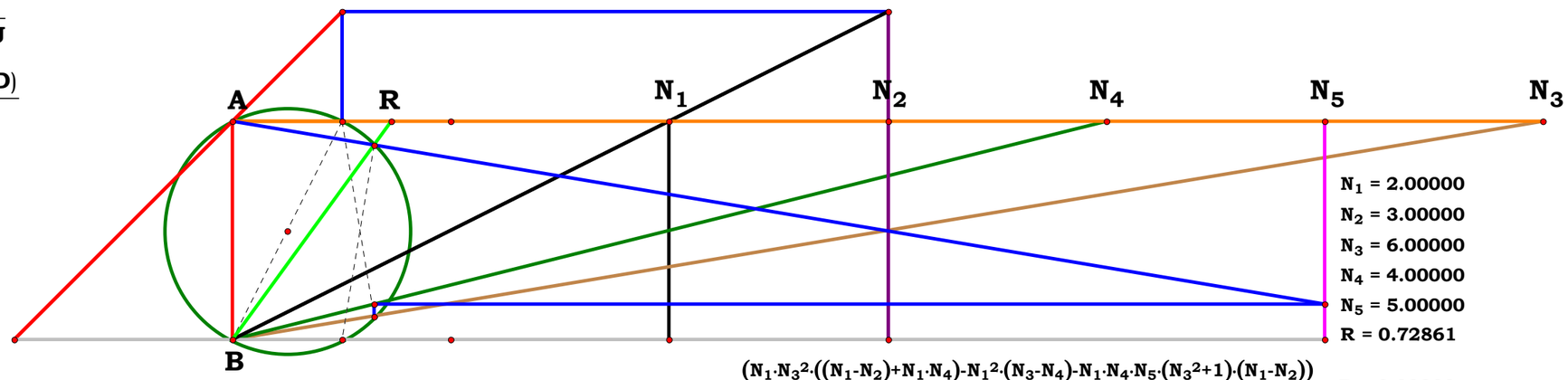
$$BJ := \frac{N_3 \cdot BH}{BN_3} \qquad GJ := \frac{BJ}{N_4} \qquad BM := \frac{N_5}{AB - GJ}$$

$$AM := \sqrt{AB^2 + BM^2} \qquad FM := \frac{BM \cdot (BM + AD)}{AM}$$

$$AF := AM - FM \qquad EF := \frac{BM \cdot AF}{AM}$$

$$AE := \frac{AF}{AM} \qquad R := \frac{EF}{AB - AE}$$

$R = 0.164617$



$N_1 = 2.00000$
$N_2 = 3.00000$
$N_3 = 6.00000$
$N_4 = 4.00000$
$N_5 = 5.00000$
$R = 0.72861$

$$\frac{(N_1 \cdot N_3^2 \cdot ((N_1 - N_2) + N_1 \cdot N_4) - N_1^2 \cdot (N_3 - N_4) - N_1 \cdot N_4 \cdot N_5 \cdot (N_3^2 + 1) \cdot (N_1 - N_2))}{(N_1 \cdot N_4 \cdot (N_3^2 + 1) \cdot ((N_1 - N_2) + N_1 \cdot N_5) + N_3 \cdot (N_1 - N_2) \cdot (N_1 \cdot N_3 - N_1 - N_2 \cdot N_3))} - R = 0.00000$$

Definitions.

$$R - \frac{N_4 - N_3 + N_3^2 \cdot N_4 + N_3^2 \cdot AD - N_4 \cdot N_5 \cdot AD - N_3^2 \cdot N_4 \cdot N_5 \cdot AD}{N_3^2 \cdot AD^2 + N_4 \cdot N_3^2 \cdot AD + N_4 \cdot N_5 \cdot N_3^2 - N_3 \cdot AD + N_4 \cdot AD + N_4 \cdot N_5} = 0$$

$$R - \frac{N_1 \cdot N_3^2 \cdot (N_1 - N_2 + N_1 \cdot N_4) - N_1^2 \cdot (N_3 - N_4) - N_5 \cdot N_1 \cdot N_4 \cdot (N_3^2 + 1) \cdot (N_1 - N_2)}{N_1 \cdot N_4 \cdot (N_3^2 + 1) \cdot (N_1 - N_2 + N_1 \cdot N_5) + N_3 \cdot (N_1 - N_2) \cdot (N_1 \cdot N_3 - N_1 - N_2 \cdot N_3)} = 0$$

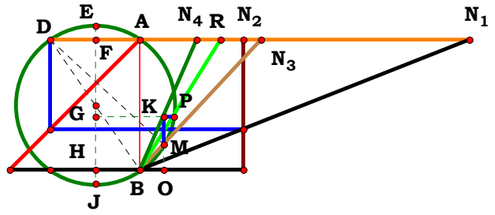
$$N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0 \quad N_4 - \frac{N_u}{D} = 0 \quad N_5 - \frac{N_u}{E} = 0$$

$$R - \frac{E \cdot [B \cdot (B \cdot C^2 + B \cdot N_u^2 - B \cdot C \cdot D - A \cdot D \cdot N_u + B \cdot D \cdot N_u)] + B \cdot N_u \cdot (C^2 + N_u^2) \cdot (A - B)}{B^2 \cdot N_u^3 + E \cdot [(A - B) \cdot (B \cdot C \cdot D - B \cdot N_u^2 - B \cdot C^2 + A \cdot D \cdot N_u - B \cdot D \cdot N_u)] + B^2 \cdot C^2 \cdot N_u} = 0$$

$$N_1 - \frac{V}{l} = 0 \quad N_2 - \frac{W}{m} = 0 \quad N_3 - \frac{X}{n} = 0 \quad N_4 - \frac{Y}{o} = 0 \quad N_5 - \frac{Z}{p} = 0$$

$$R - \frac{V \cdot m \cdot [Z \cdot Y \cdot (X^2 + n^2) \cdot (W \cdot l - V \cdot m) + V \cdot m \cdot p \cdot (X^2 \cdot Y + Y \cdot n^2 + X^2 \cdot o - X \cdot n \cdot o) - W \cdot X^2 \cdot l \cdot o \cdot p]}{Z \cdot V^2 \cdot Y \cdot m^2 \cdot (X^2 + n^2) + Y \cdot V \cdot m \cdot p \cdot (X^2 + n^2) \cdot (V \cdot m - W \cdot l) + X \cdot o \cdot p \cdot (V \cdot m - W \cdot l) \cdot (V \cdot X \cdot m - W \cdot X \cdot l - V \cdot m \cdot n)} = 0$$

4RST4AB1R4



$N_1 = 2.52540$
$N_2 = 0.79164$
$N_3 = 0.93197$
$N_4 = 0.43563$
$R = 0.62289$

Unit. $AB := 1$ Given. $N_1 := 2.52540$ $N_2 := .79164$ $N_3 := .93197$ $N_4 := .43563$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

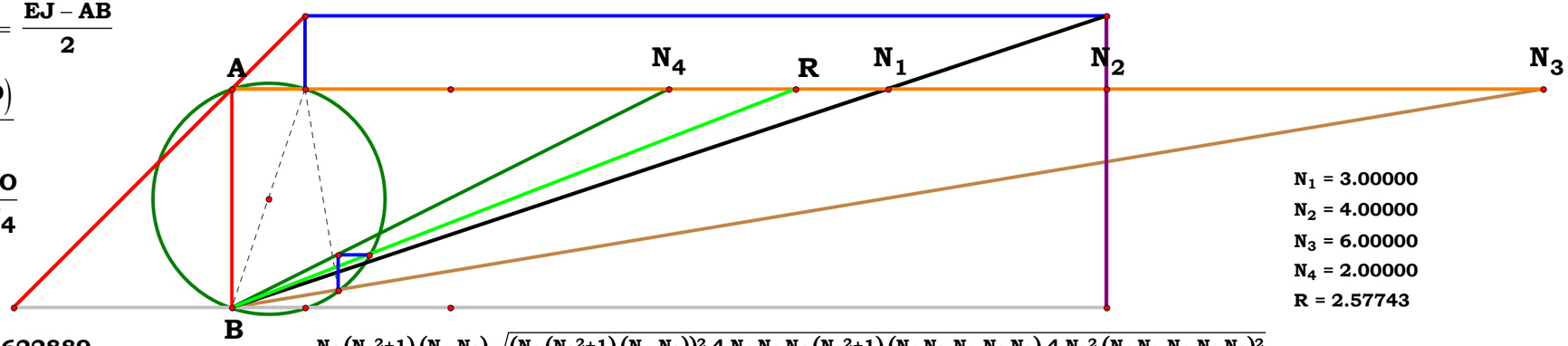
$AD := \frac{N_1 - N_2}{N_1}$ $EJ := \sqrt{AB^2 + AD^2}$ $EF := \frac{EJ - AB}{2}$

$BN_3 := \sqrt{AB^2 + N_3^2}$ $MN_3 := \frac{N_3 \cdot (N_3 + AD)}{BN_3}$

$BM := BN_3 - MN_3$ $BO := \frac{N_3 \cdot BM}{BN_3}$ $KO := \frac{BO}{N_4}$

$GJ := KO + EF$ $EG := EJ - GJ$

$GP := \sqrt{EG \cdot GJ}$ $R := \frac{(2 \cdot GP - AD)}{2 \cdot KO}$ $R = 0.622889$



$N_1 = 3.00000$
$N_2 = 4.00000$
$N_3 = 6.00000$
$N_4 = 2.00000$
$R = 2.57743$

$$\frac{N_4 \cdot (N_3^2+1) \cdot (N_1-N_2) - \sqrt{(N_4 \cdot (N_3^2+1) \cdot (N_1-N_2))^2 - 4 \cdot N_1 \cdot N_3 \cdot N_4 \cdot (N_3^2+1) \cdot (N_1 \cdot N_3 - N_1 - N_2 \cdot N_3) - 4 \cdot N_3^2 \cdot (N_1 \cdot N_3 - N_1 - N_2 \cdot N_3)^2}}{2 \cdot N_3 \cdot (N_1 \cdot N_3 - N_1 - N_2 \cdot N_3)} - R = 0.00000$$

Definitions.

$$R - \frac{\sqrt{N_4^2} \cdot AD \cdot N_4 \cdot (N_3^2 + 1) - N_4 \cdot \sqrt{N_3 \cdot N_4 \cdot \left[AD \cdot N_3 \cdot (2 \cdot AD \cdot N_4 - 4 \cdot N_3^2 + AD \cdot N_3^2 \cdot N_4 - 4) + 4 \cdot N_3^2 + 4\right]} + 4 \cdot N_3^2 \cdot \left[AD \cdot N_3 \cdot (2 - AD \cdot N_3) - 1\right] + AD^2 \cdot N_4^2}{2 \cdot \sqrt{N_4^2} \cdot N_3 \cdot (AD \cdot N_3 - 1)} = 0$$

$$R - \frac{N_4 \cdot (N_3^2 + 1) \cdot (N_1 - N_2) - \sqrt{N_4^2 \cdot (N_3^2 + 1)^2 \cdot (N_1 - N_2)^2 - 4 \cdot N_3^2 \cdot (N_1 - N_1 \cdot N_3 + N_2 \cdot N_3)^2 + 4 \cdot N_1 \cdot N_3 \cdot N_4 \cdot (N_3^2 + 1) \cdot (N_1 - N_1 \cdot N_3 + N_2 \cdot N_3)}}{2 \cdot N_3 \cdot (N_1 \cdot N_3 - N_1 - N_2 \cdot N_3)} = 0$$

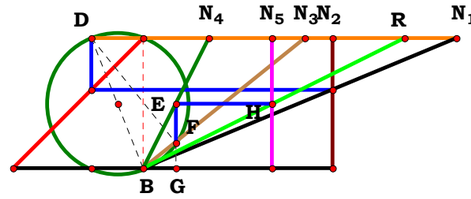
$N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$

$$R - \frac{\sqrt{\left(C^2 + N_u^2\right)^2 \cdot (A - B)^2 + 4 \cdot D \cdot \left[B \cdot C + N_u \cdot (A - B)\right] \cdot \left[N_u \cdot \left[B \cdot N_u - D \cdot (A - B)\right] + B \cdot C \cdot (C - D)\right]} + \left(C^2 + N_u^2\right) \cdot (A - B)}{2 \cdot D \cdot \left[B \cdot C + N_u \cdot (A - B)\right]} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{Z \cdot (Y^2 + o^2) \cdot (W \cdot n - X \cdot m) - \sqrt{Z^2 \cdot (Y^2 + o^2)^2 \cdot (W \cdot n - X \cdot m)^2 - 4 \cdot Z \cdot W \cdot Y \cdot n \cdot p \cdot (Y^2 + o^2) \cdot (W \cdot Y \cdot n - X \cdot Y \cdot m - W \cdot n \cdot o) - 4 \cdot Y^2 \cdot p^2 \cdot (W \cdot Y \cdot n - X \cdot Y \cdot m - W \cdot n \cdot o)^2}}{2 \cdot Y \cdot p \cdot (W \cdot Y \cdot n - X \cdot Y \cdot m - W \cdot n \cdot o)} = 0$$

4RST4AB1R7



$N_1 = 2.39948$
$N_2 = 1.45027$
$N_3 = 1.24192$
$N_4 = 0.50343$
$N_5 = 0.98795$
$R = 2.00146$

Unit. $AB := 1$ Given. $N_1 := 2.39948$ $N_2 := 1.45027$ $N_3 := 1.24192$ $N_4 := .50343$ $N_5 := .98795$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$

$V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $l := \frac{V}{N_1}$ $m := \frac{W}{N_2}$ $n := \frac{X}{N_3}$ $o := \frac{Y}{N_4}$ $p := \frac{Z}{N_5}$

Descriptions.

$AD := \frac{N_1 - N_2}{N_1}$ $BN_3 := \sqrt{AB^2 + N_3^2}$ $FN_3 := \frac{N_3 \cdot (N_3 + AD)}{BN_3}$

$BF := BN_3 - FN_3$ $BG := \frac{N_3 \cdot BF}{BN_3}$ $EG := \frac{BG}{N_4}$

$R := \frac{N_5}{EG}$ $R = 2.001469$

Definitions.

$$R - \frac{N_4 \cdot N_5 \cdot (N_3^2 + 1)}{N_3 \cdot (1 - AD \cdot N_3)}$$

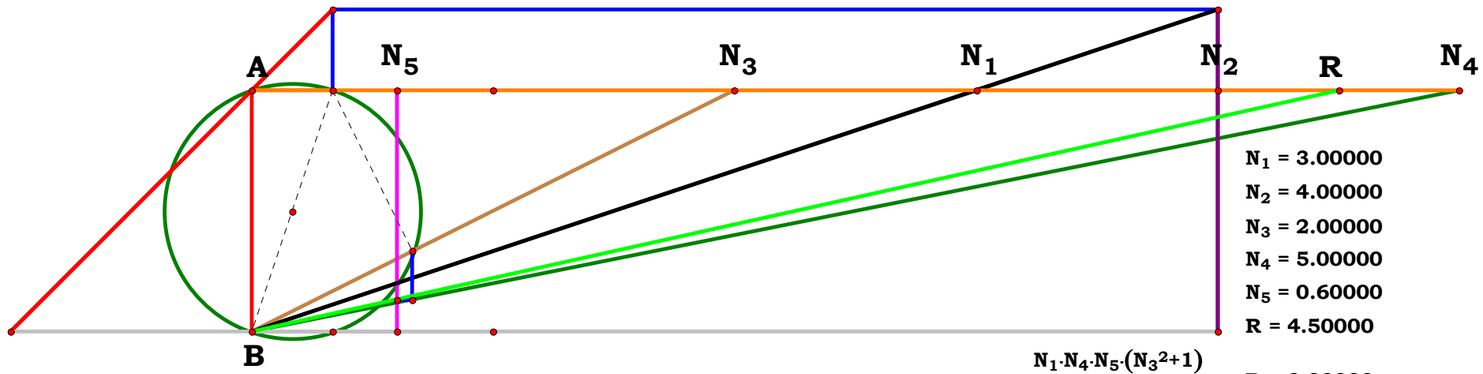
$$R - \frac{N_1 \cdot N_4 \cdot N_5 \cdot (N_3^2 + 1)}{N_3 \cdot (N_1 - N_1 \cdot N_3 + N_2 \cdot N_3)} = 0$$

$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$

$$R - \frac{B \cdot N_u \cdot (C^2 + N_u^2)}{E \cdot [B \cdot C \cdot D + D \cdot N_u \cdot (A - B)]} = 0$$

$N_1 - \frac{V}{l} = 0$ $N_2 - \frac{W}{m} = 0$ $N_3 - \frac{X}{n} = 0$ $N_4 - \frac{Y}{o} = 0$ $N_5 - \frac{Z}{p} = 0$

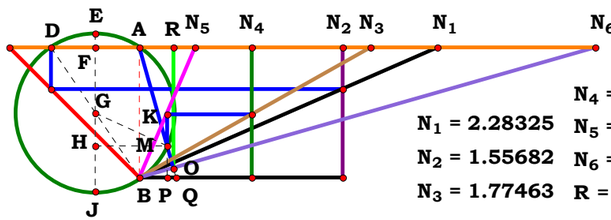
$$R - \frac{V \cdot Y \cdot Z \cdot m \cdot (X^2 + n^2)}{X \cdot o \cdot p \cdot (W \cdot X \cdot l - V \cdot X \cdot m + V \cdot m \cdot n)} = 0$$



$N_1 = 3.00000$
$N_2 = 4.00000$
$N_3 = 2.00000$
$N_4 = 5.00000$
$N_5 = 0.60000$
$R = 4.50000$

$$\frac{N_1 \cdot N_4 \cdot N_5 \cdot (N_3^2 + 1)}{N_3 \cdot ((N_1 - N_1 \cdot N_3) + N_2 \cdot N_3)} - R = 0.00000$$

4RST4AB2R1



$N_4 = 0.86181$
$N_1 = 2.28325$ $N_5 = 0.43025$
$N_2 = 1.55682$ $N_6 = 3.49657$
$N_3 = 1.77463$ $R = 0.25715$

Unit. $AB := 1$ Given. $N_1 := 2.28325$ $N_2 := 1.55682$ $N_3 := 1.77463$

$N_4 := .86181$ $N_5 := .43025$ $N_6 := 3.49657$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $F := \frac{N_u}{N_6}$

Descriptions.

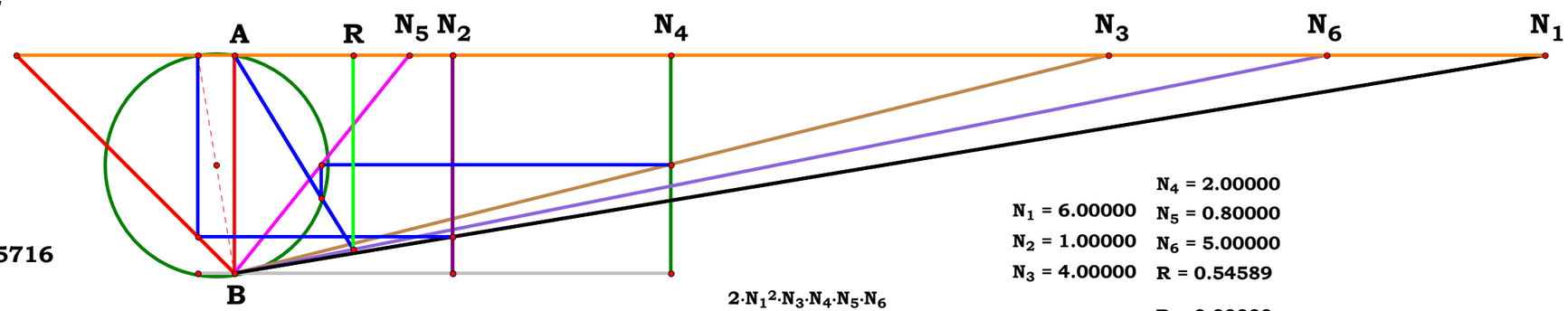
$U := 18$ $V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $k := \frac{U}{N_1}$ $l := \frac{V}{N_2}$ $m := \frac{W}{N_3}$ $n := \frac{X}{N_4}$ $o := \frac{Y}{N_5}$ $p := \frac{Z}{N_6}$

$AD := \frac{N_2}{N_1}$ $EJ := \sqrt{AB^2 + AD^2}$ $AF := \frac{AD}{2}$

$BP := N_5 \cdot \frac{N_4}{N_3}$ $HM := AF + BP$

$GH := \sqrt{\left(\frac{EJ}{2}\right)^2 - HM^2}$ $FH := \frac{AB}{2} + GH$

$BQ := \frac{HM - AF}{FH}$ $R := \frac{BQ \cdot N_6}{BQ + N_6}$ $R = 0.25716$



$N_4 = 2.00000$
$N_1 = 6.00000$ $N_5 = 0.80000$
$N_2 = 1.00000$ $N_6 = 5.00000$
$N_3 = 4.00000$ $R = 0.54589$

$$\frac{2 \cdot N_1^2 \cdot N_3 \cdot N_4 \cdot N_5 \cdot N_6}{N_1^2 \cdot N_3 \cdot (N_3 \cdot N_6 + 2 \cdot N_4 \cdot N_5) + N_6 \cdot \sqrt{N_1^4 \cdot N_3^4 - 4 \cdot N_1^3 \cdot N_3^2 \cdot N_4 \cdot N_5 \cdot (N_2 \cdot N_3 + N_1 \cdot N_4 \cdot N_5)}} - R = 0.00000$$

Definitions.

$$R - \frac{2 \cdot N_4 \cdot N_5 \cdot N_6 \cdot \sqrt{N_3^2}}{\sqrt{N_3^2} \cdot (N_3 \cdot N_6 + 2 \cdot N_4 \cdot N_5) + N_3 \cdot N_6 \cdot \sqrt{N_3^2 - 4 \cdot AD \cdot N_3 \cdot N_4 \cdot N_5 - 4 \cdot N_4^2 \cdot N_5^2}} = 0$$

$$R - \frac{2 \cdot N_1^2 \cdot N_3 \cdot N_4 \cdot N_5 \cdot N_6}{N_6 \cdot \sqrt{N_1^4 \cdot N_3^4 - 4 \cdot N_1^3 \cdot N_3^2 \cdot N_4 \cdot N_5 \cdot (N_2 \cdot N_3 + N_1 \cdot N_4 \cdot N_5)} + N_1^2 \cdot N_3 \cdot (N_3 \cdot N_6 + 2 \cdot N_4 \cdot N_5)} = 0$$

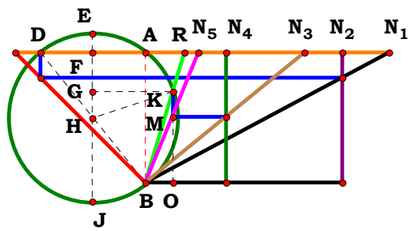
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$ $N_6 - \frac{N_u}{F} = 0$

$$R - \frac{2 \cdot C \cdot N_u \cdot \sqrt{B}}{\sqrt{B \cdot D^2 \cdot E^2 - 4 \cdot C \cdot N_u \cdot (A \cdot D \cdot E + B \cdot C \cdot N_u)} + \sqrt{B} \cdot (2 \cdot C \cdot F + D \cdot E)} = 0$$

$N_1 - \frac{U}{k} = 0$ $N_2 - \frac{V}{l} = 0$ $N_3 - \frac{W}{m} = 0$ $N_4 - \frac{X}{n} = 0$ $N_5 - \frac{Y}{o} = 0$ $N_6 - \frac{Z}{p} = 0$

$$R - \frac{2 \cdot U^2 \cdot W \cdot X \cdot Y \cdot Z \cdot m \cdot \sqrt{l}}{Z \cdot \sqrt{U^3 \cdot W^2 \cdot (U \cdot l \cdot W^2 \cdot n^2 \cdot o^2 - 4 \cdot V \cdot k \cdot W \cdot X \cdot Y \cdot m \cdot n \cdot o - 4 \cdot U \cdot l \cdot X^2 \cdot Y^2 \cdot m^2)} + \sqrt{l} \cdot U^2 \cdot W \cdot (W \cdot Z \cdot n \cdot o + 2 \cdot X \cdot Y \cdot m \cdot p)} = 0$$

4RST4AB2R3



$N_1 = 1.86676$
$N_2 = 1.50839$
$N_3 = 1.22254$
$N_4 = 0.61966$
$N_5 = 0.41087$
$R = 0.29929$

Unit. $AB := 1$ Given. $N_1 := 1.86676$ $N_2 := 1.50839$ $N_3 := 1.22254$ $N_4 := .61966$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $N_5 := .41087$

$V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $l := \frac{V}{N_1}$ $m := \frac{W}{N_2}$ $n := \frac{X}{N_3}$ $o := \frac{Y}{N_4}$ $p := \frac{Z}{N_5}$

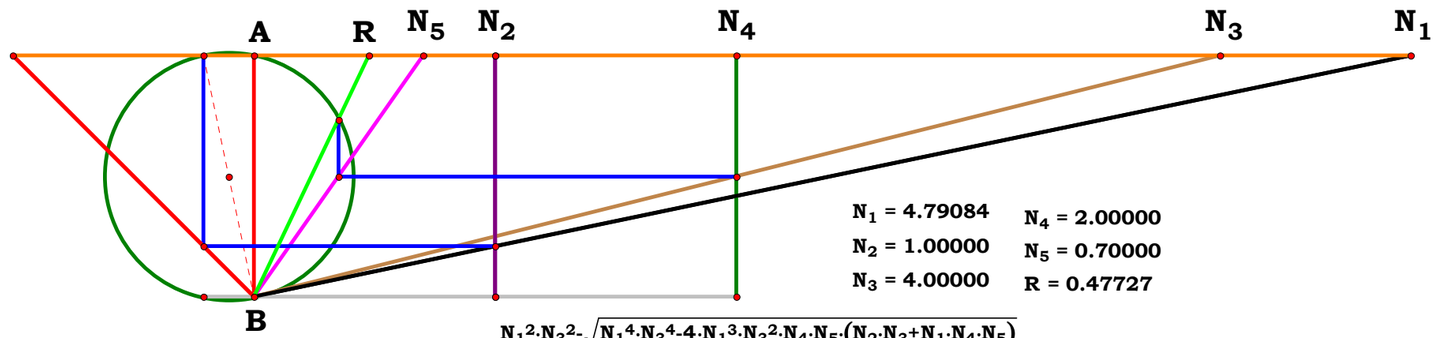
Descriptions.

$AD := \frac{N_2}{N_1}$ $MO := \frac{N_4}{N_3}$ $BO := N_5 \cdot MO$

$GK := \frac{AD}{2} + BO$ $EJ := \sqrt{AB^2 + AD^2}$

$GH := \sqrt{\left(\frac{EJ}{2}\right)^2 - GK^2}$ $EF := \frac{EJ - AB}{2}$

$KO := \frac{EJ}{2} + GH - EF$ $R := \frac{BO}{KO}$ $R = 0.299284$



$N_1 = 4.79084$ $N_4 = 2.00000$
$N_2 = 1.00000$ $N_5 = 0.70000$
$N_3 = 4.00000$ $R = 0.47727$

$$\frac{N_1^2 \cdot N_3^2 - \sqrt{N_1^4 \cdot N_3^4 - 4 \cdot N_1^3 \cdot N_3^2 \cdot N_4 \cdot N_5 \cdot (N_2 \cdot N_3 + N_1 \cdot N_4 \cdot N_5)}}{2 \cdot N_1 \cdot N_3 \cdot (N_2 \cdot N_3 + N_1 \cdot N_4 \cdot N_5)} - R = 0.00000$$

Definitions.

$$R - \frac{2 \cdot N_4 \cdot N_5 \cdot \sqrt{N_3^2}}{N_3 \cdot \left(\sqrt{N_3^2} + \sqrt{N_3^2 - 4 \cdot AD \cdot N_3 \cdot N_4 \cdot N_5 - 4 \cdot N_4^2 \cdot N_5^2}\right)} = 0$$

$$R - \frac{N_1^2 \cdot N_3^2 - \sqrt{N_1^4 \cdot N_3^4 - 4 \cdot N_1^3 \cdot N_3^2 \cdot N_4 \cdot N_5 \cdot (N_2 \cdot N_3 + N_1 \cdot N_4 \cdot N_5)}}{2 \cdot N_1 \cdot N_3 \cdot (N_2 \cdot N_3 + N_1 \cdot N_4 \cdot N_5)} = 0$$

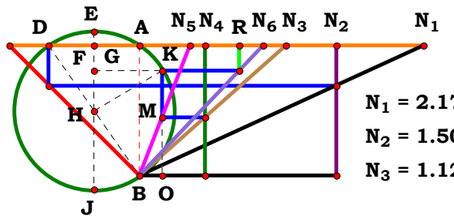
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$

$$R - \frac{\sqrt{B} \cdot \left[\sqrt{B} \cdot D \cdot E - \sqrt{B \cdot D^2 \cdot E^2 - 4 \cdot C \cdot N_u \cdot (A \cdot D \cdot E + B \cdot C \cdot N_u)}\right]}{2 \cdot (A \cdot D \cdot E + B \cdot C \cdot N_u)} = 0$$

$N_1 - \frac{V}{l} = 0$ $N_2 - \frac{W}{m} = 0$ $N_3 - \frac{X}{n} = 0$ $N_4 - \frac{Y}{o} = 0$ $N_5 - \frac{Z}{p} = 0$

$$R - \frac{\sqrt{m} \cdot \left[V^2 \cdot X^2 \cdot \sqrt{m} \cdot o \cdot p - \sqrt{\left[V^3 \cdot X^2 \cdot (V \cdot m \cdot X^2 \cdot o^2 \cdot p^2 - 4 \cdot W \cdot l \cdot X \cdot Y \cdot Z \cdot n \cdot o \cdot p - 4 \cdot V \cdot m \cdot Y^2 \cdot Z^2 \cdot n^2)\right]}\right]}{2 \cdot V \cdot X \cdot (V \cdot Y \cdot Z \cdot m \cdot n + W \cdot X \cdot l \cdot o \cdot p)} = 0$$

4RST4AB2R5



$N_1 = 2.17671$
$N_2 = 1.50839$
$N_3 = 1.12332$
$N_4 = 0.50580$
$N_5 = 0.39150$
$N_6 = 0.94921$
$R = 0.76988$

Unit. $AB := 1$ **Given.** $N_1 := 2.17671$ $N_2 := 1.50839$ $N_3 := 1.12332$ $N_4 := .50580$ $N_5 := .39150$ $N_6 := .94921$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $F := \frac{N_u}{N_6}$

$U := 18$ $V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$k := \frac{U}{N_1}$ $l := \frac{V}{N_2}$ $m := \frac{W}{N_3}$ $n := \frac{X}{N_4}$ $o := \frac{Y}{N_5}$ $p := \frac{Z}{N_6}$

Descriptions.

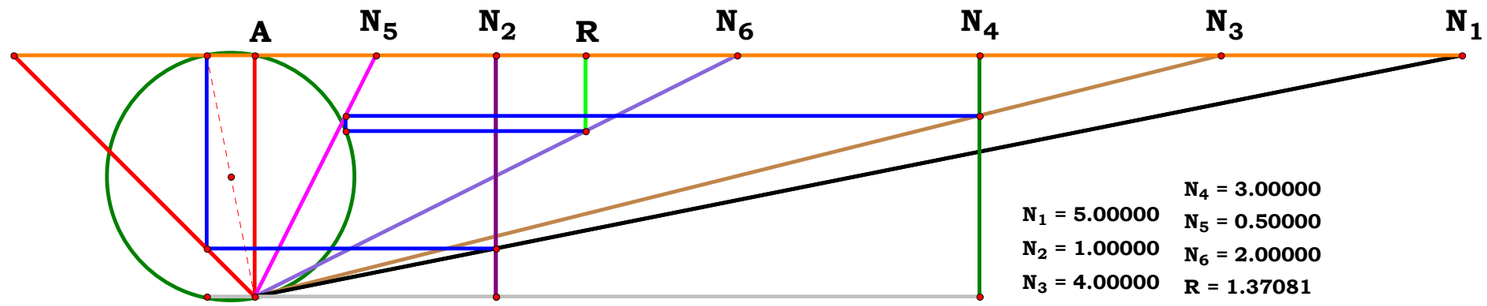
$AD := \frac{N_2}{N_1}$ $MO := \frac{N_4}{N_3}$

$BO := N_5 \cdot MO$ $FK := BO + \frac{AD}{2}$

$EJ := \sqrt{AD^2 + AB^2}$ $HK := \frac{EJ}{2}$

$FH := \sqrt{HK^2 - FK^2}$ $EF := \frac{EJ - AB}{2}$

$KO := HK + FH - EF$ $R := N_6 \cdot KO$ $R = 0.76988$



$N_1 = 5.00000$
$N_2 = 1.00000$
$N_3 = 4.00000$
$N_4 = 3.00000$
$N_5 = 0.50000$
$N_6 = 2.00000$
$R = 1.37081$

Definitions.

$$R - \frac{N_6 \cdot \left(\sqrt{N_3^2} + \sqrt{N_3^2 - 4 \cdot AD \cdot N_3 \cdot N_4 \cdot N_5 - 4 \cdot N_4^2 \cdot N_5^2}\right)}{2 \cdot \sqrt{N_3^2}} = 0$$

$$R - \frac{N_6 \cdot \left[\sqrt{N_1^2 \cdot N_3^2 - 4 \cdot N_1 \cdot N_4 \cdot N_5 \cdot (N_2 \cdot N_3 + N_1 \cdot N_4 \cdot N_5)} + N_1 \cdot N_3\right]}{2 \cdot (N_1 \cdot N_3)} = 0$$

$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$ $N_6 - \frac{N_u}{F} = 0$

$$R - \frac{N_u \cdot \left[\sqrt{B \cdot D^2 \cdot E^2 - 4 \cdot C \cdot N_u \cdot (A \cdot D \cdot E + B \cdot C \cdot N_u)} + \sqrt{B} \cdot D \cdot E\right]}{2 \cdot F \cdot \sqrt{B} \cdot D \cdot E} = 0$$

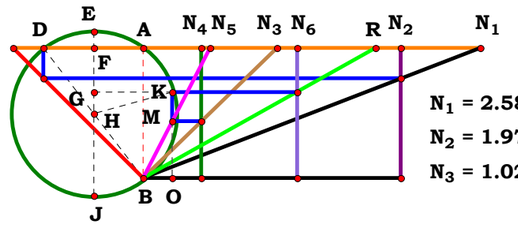
$N_1 - \frac{U}{k} = 0$ $N_2 - \frac{V}{l} = 0$ $N_3 - \frac{W}{m} = 0$ $N_4 - \frac{X}{n} = 0$ $N_5 - \frac{Y}{o} = 0$ $N_6 - \frac{Z}{p} = 0$

$$R - \frac{Z \cdot \left[\sqrt{\left[U \cdot \left(U \cdot l \cdot W^2 \cdot n^2 \cdot o^2 - 4 \cdot V \cdot k \cdot W \cdot X \cdot Y \cdot m \cdot n \cdot o - 4 \cdot U \cdot l \cdot X^2 \cdot Y^2 \cdot m^2\right)\right]} + U \cdot W \cdot \sqrt{l} \cdot n \cdot o\right]}{2 \cdot U \cdot W \cdot \sqrt{l} \cdot n \cdot o \cdot p} = 0$$

B

$$\frac{N_6 \cdot \left(N_1 \cdot N_3 + \sqrt{N_1^2 \cdot N_3^2 - 4 \cdot N_1 \cdot N_4 \cdot N_5 \cdot (N_2 \cdot N_3 + N_1 \cdot N_4 \cdot N_5)}\right)}{2 \cdot N_1 \cdot N_3} - R = 0.00000$$

4RST4AB2R6



$N_1 = 2.58351$
$N_2 = 1.97331$
$N_3 = 1.02646$
$N_4 = 0.44768$
$N_5 = 0.51742$
$N_6 = 1.18167$
$R = 1.78115$

Unit. $AB := 1$ **Given.** $N_1 := 2.58351$ $N_2 := 1.97331$ $N_3 := 1.02646$

$N_4 := .44768$ $N_5 := .51742$ $N_6 := 1.18167$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $F := \frac{N_u}{N_6}$

$U := 18$ $V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$k := \frac{U}{N_1}$ $l := \frac{V}{N_2}$ $m := \frac{W}{N_3}$ $n := \frac{X}{N_4}$ $o := \frac{Y}{N_5}$ $p := \frac{Z}{N_6}$

Descriptions.

$AD := \frac{N_2}{N_1}$ $MO := \frac{N_4}{N_3}$ $BO := N_5 \cdot MO$

$EJ := \sqrt{AD^2 + AB^2}$ $EF := \frac{EJ - AB}{2}$

$HK := \frac{EJ}{2}$ $GK := \frac{AD}{2} + BO$ $GH := \sqrt{HK^2 - GK^2}$

$KO := HK + GH - EF$ $R := \frac{N_6}{KO}$ $R = 1.78117$

Definitions.

$$R - \frac{2 \cdot N_6 \cdot \sqrt{N_3^2}}{\sqrt{N_3^2} + \sqrt{N_3^2 - 4 \cdot AD \cdot N_3 \cdot N_4 \cdot N_5 - 4 \cdot N_4^2 \cdot N_5^2}} = 0$$

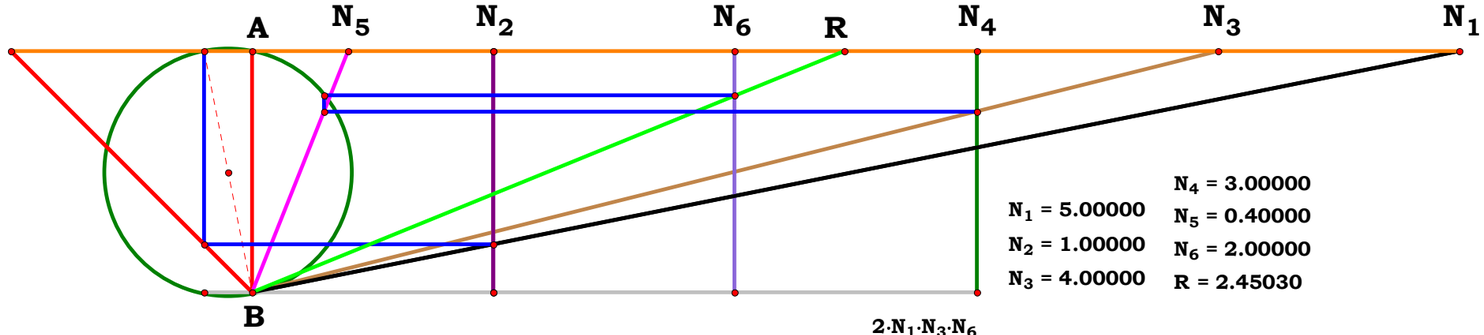
$$R - \frac{2 \cdot N_6 \cdot (N_1 \cdot N_3)}{\sqrt{N_1^2 \cdot N_3^2 - 4 \cdot N_1 \cdot N_4 \cdot N_5 \cdot (N_2 \cdot N_3 + N_1 \cdot N_4 \cdot N_5)} + N_1 \cdot N_3} = 0$$

$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$ $N_6 - \frac{N_u}{F} = 0$

$$R - \frac{2 \cdot N_u \cdot \sqrt{B} \cdot D \cdot E}{F \cdot \left[\sqrt{B \cdot D^2 \cdot E^2 - 4 \cdot C \cdot N_u \cdot (A \cdot D \cdot E + B \cdot C \cdot N_u)} + \sqrt{B} \cdot D \cdot E\right]} = 0$$

$N_1 - \frac{U}{k} = 0$ $N_2 - \frac{V}{l} = 0$ $N_3 - \frac{W}{m} = 0$ $N_4 - \frac{X}{n} = 0$ $N_5 - \frac{Y}{o} = 0$ $N_6 - \frac{Z}{p} = 0$

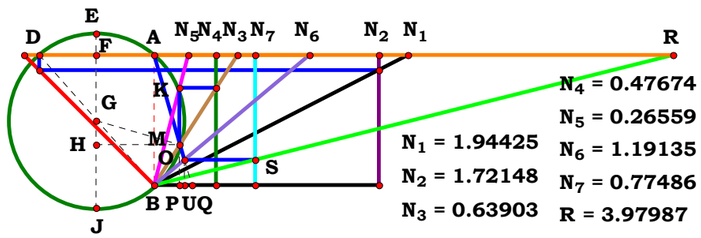
$$R - \frac{2 \cdot N_u \cdot U \cdot W \cdot \sqrt{l} \cdot n \cdot o}{F \cdot \left[\sqrt{-U \cdot (4 \cdot V \cdot k \cdot W \cdot X \cdot Y \cdot m \cdot n \cdot o - U \cdot l \cdot W^2 \cdot n^2 \cdot o^2 + 4 \cdot U \cdot l \cdot X^2 \cdot Y^2 \cdot m^2)} + U \cdot W \cdot \sqrt{l} \cdot n \cdot o\right]} = 0$$



$N_1 = 5.00000$
$N_2 = 1.00000$
$N_3 = 4.00000$
$N_4 = 3.00000$
$N_5 = 0.40000$
$N_6 = 2.00000$
$R = 2.45030$

$$\frac{2 \cdot N_1 \cdot N_3 \cdot N_6}{N_1 \cdot N_3 + \sqrt{N_1^2 \cdot N_3^2 - 4 \cdot N_1 \cdot N_4 \cdot N_5 \cdot (N_2 \cdot N_3 + N_1 \cdot N_4 \cdot N_5)}} - R = 0.00000$$

4RST4AB2R10



Unit. $AB := 1$ Given. $N_1 := 1.94425$ $N_2 := 1.72148$ $N_3 := .63903$ $N_4 := .47674$

$N_5 := .26559$ $N_6 := 1.19135$ $N_7 := .77486$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $F := \frac{N_u}{N_6}$ $G := \frac{N_u}{N_7}$

$T := 19$ $U := 18$ $V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$j := \frac{T}{N_1}$ $k := \frac{U}{N_2}$ $l := \frac{V}{N_3}$ $m := \frac{W}{N_4}$ $n := \frac{X}{N_5}$ $o := \frac{Y}{N_6}$ $p := \frac{Z}{N_7}$

Descriptions.

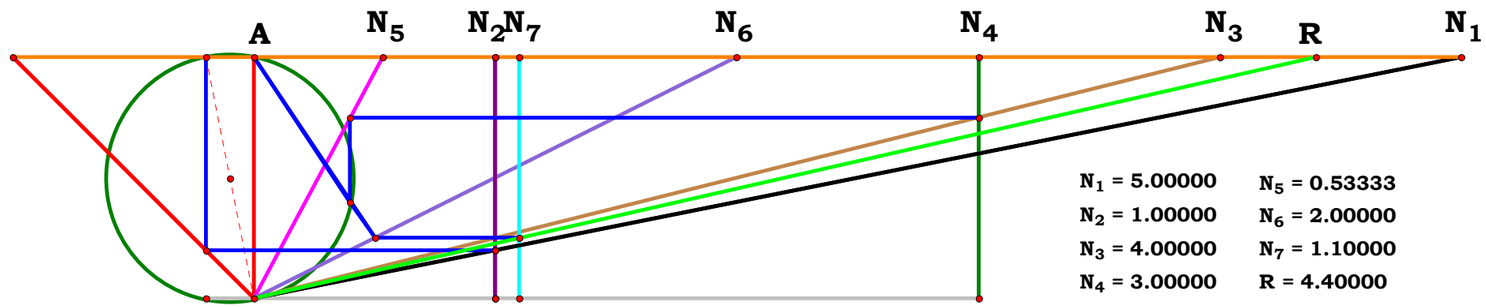
$AD := \frac{N_2}{N_1}$ $BP := N_5 \cdot \frac{N_4}{N_3}$ $EJ := \sqrt{AD^2 + AB^2}$

$EF := \frac{EJ - AB}{2}$ $GM := \frac{EJ}{2}$ $HM := \frac{AD}{2} + BP$

$GH := \sqrt{GM^2 - HM^2}$ $FH := GM + GH - EF$

$BQ := \frac{BP}{FH}$ $BU := \frac{N_6 \cdot BQ}{N_6 + BQ}$ $OU := \frac{BU}{N_6}$

$R := \frac{N_7}{OU}$ $R = 3.979731$



Definitions.

$$R - \frac{N_7 \cdot \left[\sqrt{N_3^2} \cdot \left(N_3 \cdot N_6 + 2 \cdot N_4 \cdot N_5\right) + N_3 \cdot N_6 \cdot \sqrt{N_3^2 - 4 \cdot AD \cdot N_3 \cdot N_4 \cdot N_5 - 4 \cdot N_4^2 \cdot N_5^2}\right]}{2 \cdot N_4 \cdot N_5 \cdot \sqrt{N_3^2}} = 0$$

$$R - \frac{N_7 \cdot \left[N_6 \cdot \sqrt{N_1^2 \cdot N_3^2 - 4 \cdot N_1 \cdot N_4 \cdot N_5 \cdot \left(N_2 \cdot N_3 + N_1 \cdot N_4 \cdot N_5\right)} + N_1 \cdot \left(N_3 \cdot N_6 + 2 \cdot N_4 \cdot N_5\right)\right]}{2 \cdot N_1 \cdot N_4 \cdot N_5} = 0$$

$$\frac{N_7 \cdot \left(N_1 \cdot N_3 \cdot N_6 + 2 \cdot N_1 \cdot N_4 \cdot N_5 + N_6 \cdot \sqrt{N_1^2 \cdot N_3^2 - 4 \cdot N_1 \cdot N_4 \cdot N_5 \cdot \left(N_2 \cdot N_3 + N_1 \cdot N_4 \cdot N_5\right)}\right)}{2 \cdot N_1 \cdot N_4 \cdot N_5} - R = 0.00000$$

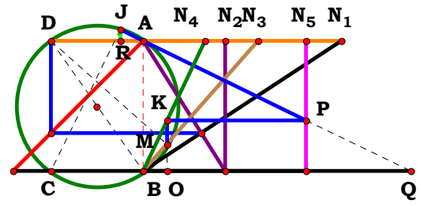
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$ $N_6 - \frac{N_u}{F} = 0$

$$R - \frac{N_u \cdot \left[\sqrt{B \cdot D^2 \cdot E^2 - 4 \cdot C \cdot N_u \cdot \left(A \cdot D \cdot E + B \cdot C \cdot N_u\right)} + \sqrt{B} \cdot (2 \cdot C \cdot F + D \cdot E)\right]}{2 \cdot C \cdot F \cdot G \cdot \sqrt{B}} = 0$$

$N_1 - \frac{T}{j} = 0$ $N_2 - \frac{U}{k} = 0$ $N_3 - \frac{V}{l} = 0$ $N_4 - \frac{W}{m} = 0$ $N_5 - \frac{X}{n} = 0$ $N_6 - \frac{Y}{o} = 0$ $N_7 - \frac{Z}{p} = 0$

$$R - \frac{Z \cdot \left[Y \cdot \sqrt{\left[T \cdot \left(T \cdot k \cdot V^2 \cdot m^2 \cdot n^2 - 4 \cdot U \cdot j \cdot V \cdot W \cdot X \cdot l \cdot m \cdot n - 4 \cdot T \cdot k \cdot W^2 \cdot X^2 \cdot l^2\right)\right]} + \sqrt{k} \cdot T \cdot (V \cdot Y \cdot m \cdot n + 2 \cdot W \cdot X \cdot l \cdot o)\right]}{2 \cdot T \cdot W \cdot X \cdot l \cdot o \cdot p \cdot \sqrt{k}} = 0$$

4RST4AB3R0



$N_1 = 1.51808$
$N_2 = 0.62698$
$N_3 = 0.88354$
$N_4 = 0.47437$
$N_5 = 1.24947$
$R = -0.17873$

Unit. $AB := 1$ Given. $N_1 := 1.51808$ $N_2 := .62698$ $N_3 := .88354$ $N_4 := .47437$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $N_5 := 1.24947$

$V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $l := \frac{V}{N_1}$ $m := \frac{W}{N_2}$ $n := \frac{X}{N_3}$ $o := \frac{Y}{N_4}$ $p := \frac{Z}{N_5}$

Descriptions.

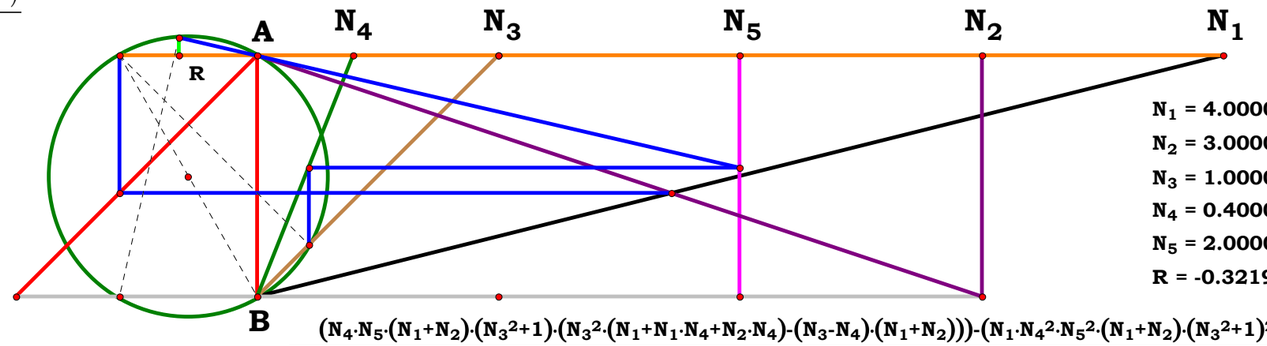
$AD := \frac{N_1}{N_1 + N_2}$ $BN_3 := \sqrt{AB^2 + N_3^2}$ $MN_3 := \frac{N_3 \cdot (N_3 + AD)}{BN_3}$

$BM := BN_3 - MN_3$ $BO := \frac{N_3 \cdot BM}{BN_3}$ $KO := \frac{BO}{N_4}$

$BQ := \frac{N_5}{AB - KO}$ $AQ := \sqrt{AB^2 + BQ^2}$

$JQ := \frac{BQ \cdot (BQ + AD)}{AQ}$ $AJ := AQ - JQ$

$R := \frac{BQ \cdot AJ}{AQ}$ $R = -0.178733$



$N_1 = 4.00000$
$N_2 = 3.00000$
$N_3 = 1.00000$
$N_4 = 0.40000$
$N_5 = 2.00000$
$R = -0.32194$

$$\frac{(N_4 \cdot N_5 \cdot (N_1+N_2) \cdot (N_3^2+1) \cdot (N_3^2 \cdot (N_1+N_1 \cdot N_4+N_2 \cdot N_4)-(N_3-N_4) \cdot (N_1+N_2)))-(N_1 \cdot N_4^2 \cdot N_5^2 \cdot (N_1+N_2) \cdot (N_3^2+1)^2)}{(N_4^2 \cdot (N_3^2+1)^2 \cdot (N_5^2+1) \cdot (N_1+N_2)^2)+(2 \cdot N_3 \cdot N_4 \cdot (N_1+N_2) \cdot (N_3^2+1) \cdot (N_1 \cdot N_3-N_2-N_1))+(N_3^2 \cdot (N_1 \cdot N_3-N_2-N_1)^2)} - R = 0.00000$$

Definitions.

$$R - \frac{N_4 \cdot N_5 \cdot (N_1 + N_2) \cdot (N_3^2 + 1) \cdot \left[N_3^2 \cdot (N_1 + N_1 \cdot N_4 + N_2 \cdot N_4) - (N_3 - N_4) \cdot (N_1 + N_2)\right] - N_1 \cdot N_4^2 \cdot N_5^2 \cdot (N_1 + N_2) \cdot (N_3^2 + 1)^2}{N_4^2 \cdot (N_3^2 + 1)^2 \cdot (N_5^2 + 1) \cdot (N_1 + N_2)^2 + 2 \cdot N_3 \cdot N_4 \cdot (N_1 + N_2) \cdot (N_3^2 + 1) \cdot (N_1 \cdot N_3 - N_2 - N_1) + N_3^2 \cdot (N_1 \cdot N_3 - N_2 - N_1)^2} = 0$$

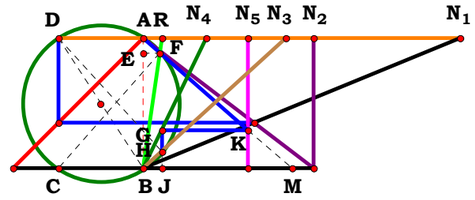
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$

$$R - \frac{N_u \cdot (C^2 + N_u^2) \cdot (A + B) \cdot \left[[E \cdot (A + B)] \cdot N_u^2 - B \cdot N_u \cdot (C^2 - D \cdot E) - B \cdot N_u^3 + C \cdot E \cdot (C - D) \cdot (A + B)\right]}{E^2 \cdot \left[(A + B) \cdot N_u^2 + B \cdot D \cdot N_u + C \cdot (C - D) \cdot (A + B)\right]^2 + N_u^2 \cdot (C^2 + N_u^2)^2 \cdot (A + B)^2} = 0$$

$N_1 - \frac{V}{l} = 0$ $N_2 - \frac{W}{m} = 0$ $N_3 - \frac{X}{n} = 0$ $N_4 - \frac{Y}{o} = 0$ $N_5 - \frac{Z}{p} = 0$

$$R - \frac{Y \cdot Z \cdot (V \cdot m + W \cdot l) \cdot (X^2 + n^2) \cdot \left[W \cdot l \cdot p \cdot (Y \cdot X^2 - o \cdot X \cdot n + Y \cdot n^2) + V \cdot m \cdot (X^2 \cdot Y \cdot p - Y \cdot Z \cdot n^2 - X^2 \cdot Y \cdot Z + Y \cdot n^2 \cdot p + X^2 \cdot o \cdot p - X \cdot n \cdot o \cdot p)\right]}{Y^2 \cdot (X^2 + n^2)^2 \cdot (Z^2 + p^2) \cdot (V \cdot m + W \cdot l)^2 + 2 \cdot Y \cdot X \cdot o \cdot p^2 \cdot (X^2 + n^2) \cdot (V \cdot m + W \cdot l) \cdot (V \cdot X \cdot m - V \cdot m \cdot n - W \cdot l \cdot n) + X^2 \cdot o^2 \cdot p^2 \cdot (V \cdot X \cdot m - V \cdot m \cdot n - W \cdot l \cdot n)^2} = 0$$

4RST4AB3R2



$N_1 = 2.42854$
$N_2 = 1.30499$
$N_3 = 1.09663$
$N_4 = 0.48406$
$N_5 = 0.80392$
$R = 0.14432$

Unit. $AB := 1$ Given. $N_1 := 2.42854$ $N_2 := 1.30499$ $N_3 := 1.09663$ $N_4 := .48406$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $N_5 := .80392$

$V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $l := \frac{V}{N_1}$ $m := \frac{W}{N_2}$ $n := \frac{X}{N_3}$ $o := \frac{Y}{N_4}$ $p := \frac{Z}{N_5}$

Descriptions.

$$AD := \frac{N_1}{N_1 + N_2} \qquad BN_3 := \sqrt{AB^2 + N_3^2}$$

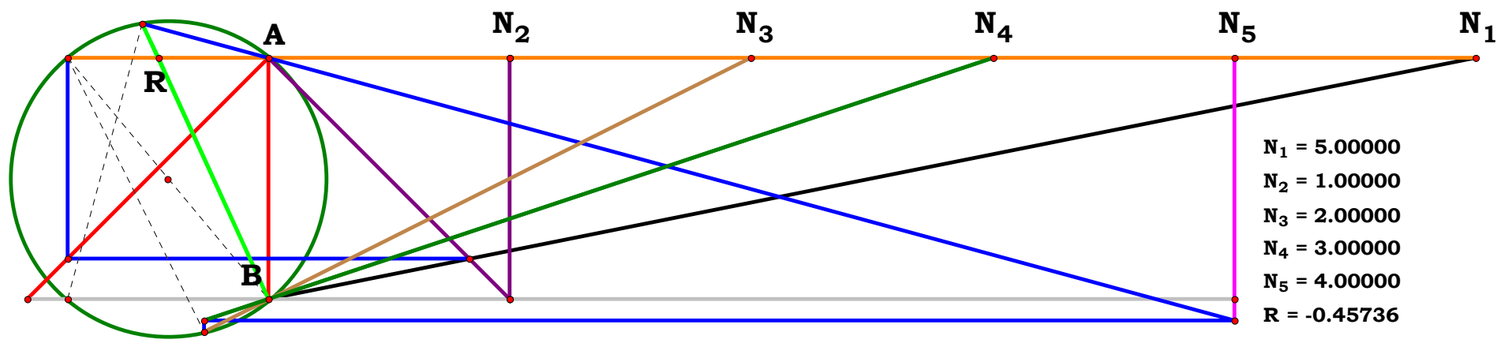
$$HN_3 := \frac{N_3 \cdot (N_3 + AD)}{BN_3} \qquad BH := BN_3 - HN_3$$

$$BJ := \frac{N_3 \cdot BH}{BN_3} \qquad GJ := \frac{BJ}{N_4} \qquad BM := \frac{N_5}{AB - GJ}$$

$$AM := \sqrt{AB^2 + BM^2} \qquad FM := \frac{BM \cdot (BM + AD)}{AM}$$

$$AF := AM - FM \qquad EF := \frac{BM \cdot AF}{AM} \qquad AE := \frac{AF}{AM}$$

$$R := \frac{EF}{AB - AE} \qquad R = 0.144317$$



$N_1 = 5.00000$
$N_2 = 1.00000$
$N_3 = 2.00000$
$N_4 = 3.00000$
$N_5 = 4.00000$
$R = -0.45736$

$$\frac{((N_1+N_2)\cdot(N_4\cdot(N_3^2+1)\cdot((N_1+N_2)-N_1\cdot N_5)+N_3\cdot((N_1\cdot N_3)-(N_1+N_2))))}{(N_4\cdot(N_3^2+1)\cdot(N_1+N_2)\cdot(N_1+N_1\cdot N_5+N_2\cdot N_5)+(N_1\cdot N_3)\cdot((N_1\cdot N_3)-(N_1+N_2)))} - R = 0.00000$$

Definitions.

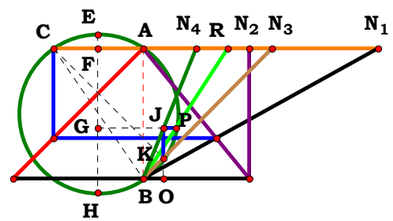
$$R - \frac{(N_1 + N_2)\cdot\left[N_4\cdot\left(N_3^2 + 1\right)\cdot(N_1 + N_2 - N_1\cdot N_5) + N_3\cdot(N_1\cdot N_3 - N_2 - N_1)\right]}{N_4\cdot\left(N_3^2 + 1\right)\cdot(N_1 + N_2)\cdot(N_1 + N_1\cdot N_5 + N_2\cdot N_5) + N_1\cdot N_3\cdot(N_1\cdot N_3 - N_2 - N_1)} = 0$$

$$N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0 \quad N_4 - \frac{N_u}{D} = 0 \quad N_5 - \frac{N_u}{E} = 0$$

$$R - \frac{(A+B)\cdot\left[E\cdot\left[\left(C^2 + N_u^2\right)\cdot(A+B) - D\cdot\left[C\cdot(A+B) - B\cdot N_u\right]\right] - \left(B\cdot C^2\cdot N_u + B\cdot N_u^3\right)\right]}{E\cdot B\cdot\left[\left(C^2 + N_u^2\right)\cdot(A+B) - D\cdot\left[C\cdot(A+B) - B\cdot N_u\right]\right] + N_u\cdot\left(C^2 + N_u^2\right)\cdot(A+B)^2} = 0 \qquad N_1 - \frac{V}{l} = 0 \quad N_2 - \frac{W}{m} = 0 \quad N_3 - \frac{X}{n} = 0 \quad N_4 - \frac{Y}{o} = 0 \quad N_5 - \frac{Z}{p} = 0$$

$$R - \frac{(V\cdot m + W\cdot l)\cdot\left[Y\cdot\left(X^2 + n^2\right)\cdot(V\cdot m\cdot p - V\cdot Z\cdot m + W\cdot l\cdot p) + X\cdot o\cdot p\cdot(V\cdot X\cdot m - V\cdot m\cdot n - W\cdot l\cdot n)\right]}{Y\cdot\left(X^2 + n^2\right)\cdot(V\cdot m + W\cdot l)\cdot(V\cdot Z\cdot m + W\cdot Z\cdot l + V\cdot m\cdot p) + V\cdot X\cdot m\cdot o\cdot p\cdot(V\cdot X\cdot m - V\cdot m\cdot n - W\cdot l\cdot n)} = 0$$

4RST4AB3R4



$N_1 = 1.79896$
$N_2 = 0.81101$
$N_3 = 0.99009$
$N_4 = 0.40657$
$R = 0.64704$

Unit. $AB := 1$ **Given.** $N_1 := 1.79896$ $N_2 := .81101$ $N_3 := .99009$ $N_4 := .40657$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

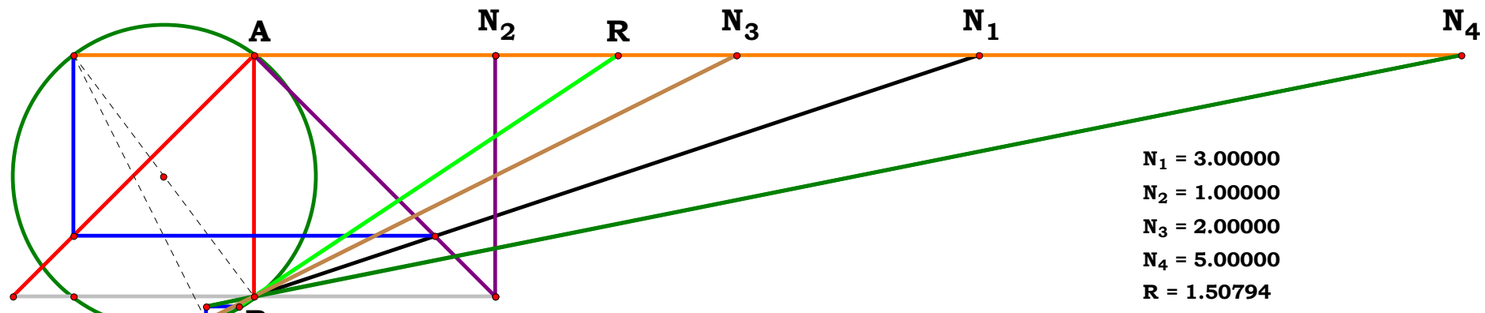
$AC := \frac{N_1}{N_1 + N_2}$ $EH := \sqrt{AB^2 + AC^2}$ $EF := \frac{EH - AB}{2}$ $BN_3 := \sqrt{AB^2 + N_3^2}$

$KN_3 := \frac{N_3 \cdot (N_3 + AC)}{BN_3}$ $BK := BN_3 - KN_3$

$BO := \frac{N_3 \cdot BK}{BN_3}$ $JO := \frac{BO}{N_4}$ $GP := JO + EF$

$EG := EH - GP$ $GP := \sqrt{EG \cdot GP}$ $R := \frac{GP - \frac{AC}{2}}{JO}$

$R = 0.647038$



$N_1 = 3.00000$
$N_2 = 1.00000$
$N_3 = 2.00000$
$N_4 = 5.00000$
$R = 1.50794$

$$\frac{(N_1 \cdot N_4) \cdot (N_3^2+1) - \sqrt{((N_1 \cdot N_4) \cdot (N_3^2+1))^2 - 4 \cdot N_3 \cdot (N_3 \cdot ((N_1+N_2) - N_1 \cdot N_3) - N_4 \cdot (N_1+N_2) \cdot (N_3^2+1)) \cdot ((N_1+N_2) - N_1 \cdot N_3)}}{2 \cdot N_3 \cdot (N_1 \cdot N_3 - (N_1+N_2))} - R = 0.00000$$

Definitions.

$$R - \frac{\sqrt{N_4^2} \cdot AC \cdot N_4 \cdot (N_3^2 + 1) - N_4 \cdot \sqrt{N_3 \cdot N_4 \cdot \left[AC \cdot N_3 \cdot (2 \cdot AC \cdot N_4 - 4 \cdot N_3^2 + AC \cdot N_3^2 \cdot N_4 - 4) + 4 \cdot N_3^2 + 4\right] + 4 \cdot N_3^2 \cdot \left[AC \cdot N_3 \cdot (2 - AC \cdot N_3) - 1\right] + AC^2 \cdot N_4^2}}{2 \cdot \sqrt{N_4^2} \cdot N_3 \cdot (AC \cdot N_3 - 1)} = 0$$

$$R - \frac{N_1 \cdot N_4 \cdot (N_3^2 + 1) - \sqrt{N_1^2 \cdot N_4^2 \cdot (N_3^2 + 1)^2 - 4 \cdot N_3 \cdot \left[N_3 \cdot (N_1 + N_2 - N_1 \cdot N_3) - N_4 \cdot (N_1 + N_2) \cdot (N_3^2 + 1)\right] \cdot (N_1 + N_2 - N_1 \cdot N_3)}}{2 \cdot N_3 \cdot (N_1 \cdot N_3 - N_2 - N_1)} = 0$$

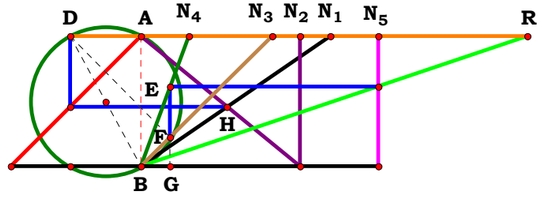
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{\sqrt{4 \cdot D \cdot \left[C \cdot (A+B) - B \cdot N_u\right] \cdot \left[C^2 \cdot (A+B) + N_u^2 \cdot (A+B) - D \cdot \left[C \cdot (A+B) - B \cdot N_u\right]\right] + B^2 \cdot \left(C^2 + N_u^2\right)^2} - B \cdot \left(C^2 + N_u^2\right)}{2 \cdot D \cdot \left[C \cdot (A+B) - B \cdot N_u\right]} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{W \cdot Z \cdot n \cdot (Y^2 + o^2) - \sqrt{W^2 \cdot Z^2 \cdot n^2 \cdot (Y^2 + o^2)^2 - 4 \cdot Y^2 \cdot p^2 \cdot (W \cdot n \cdot o - W \cdot Y \cdot n + X \cdot m \cdot o)^2 + 4 \cdot Y \cdot Z \cdot p \cdot (W \cdot n + X \cdot m) \cdot (Y^2 + o^2) \cdot (W \cdot n \cdot o - W \cdot Y \cdot n + X \cdot m \cdot o)}}{2 \cdot Y \cdot p \cdot (W \cdot Y \cdot n - W \cdot n \cdot o - X \cdot m \cdot o)} = 0$$

4RST4AB3R7



$N_1 = 1.45027$
$N_2 = 1.21782$
$N_3 = 1.00946$
$N_4 = 0.36783$
$N_5 = 1.82093$
$R = 2.96844$

Unit. $AB := 1$ Given. $N_1 := 1.45027$ $N_2 := 1.21782$ $N_3 := 1.00946$ $N_4 := .36783$ $N_5 := 1.82093$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$

$V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $l := \frac{V}{N_1}$ $m := \frac{W}{N_2}$ $n := \frac{X}{N_3}$ $o := \frac{Y}{N_4}$ $p := \frac{Z}{N_5}$

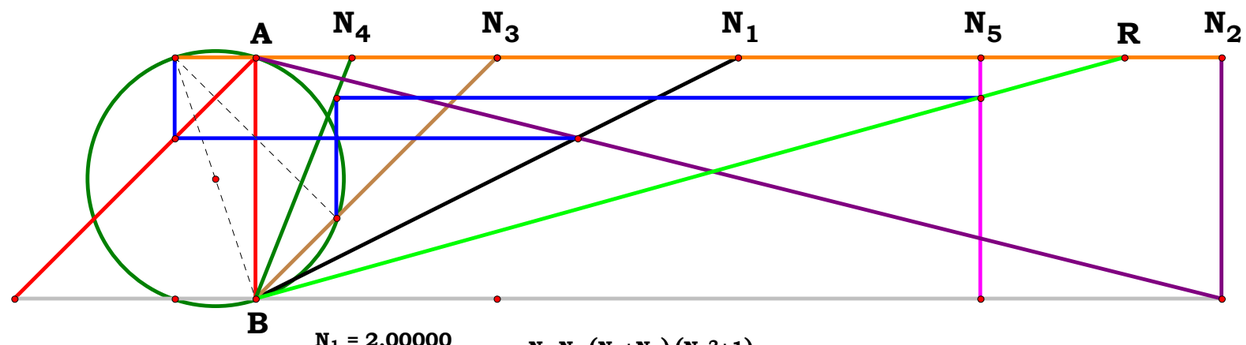
Descriptions.

$AD := \frac{N_1}{N_1 + N_2}$ $BN_3 := \sqrt{AB^2 + N_3{}^2}$

$FN_3 := \frac{N_3 \cdot (N_3 + AD)}{BN_3}$ $BF := BN_3 - FN_3$

$BG := \frac{N_3 \cdot BF}{BN_3}$ $EG := \frac{BG}{N_4}$ $R := \frac{N_5}{EG}$

$R = 2.968434$



$N_1 = 2.00000$
$N_2 = 4.00000$
$N_3 = 1.00000$
$N_4 = 0.40000$
$N_5 = 3.00000$
$R = 3.60000$

$\frac{N_4 \cdot N_5 \cdot (N_1 + N_2) \cdot (N_3{}^2 + 1)}{N_3 \cdot ((N_1 + N_2) - N_1 \cdot N_3)} - R = 0.00000$

Definitions.

$R - \frac{N_4 \cdot N_5 \cdot (N_1 + N_2) \cdot (N_3{}^2 + 1)}{N_3 \cdot (N_1 + N_2 - N_1 \cdot N_3)} = 0$

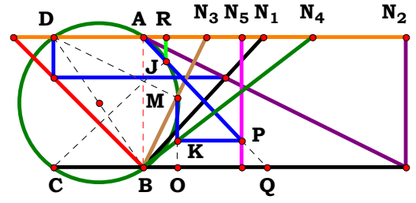
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$

$R - \frac{N_u \cdot (C^2 + N_u{}^2) \cdot (A + B)}{D \cdot E \cdot [C \cdot (A + B) - B \cdot N_u]} = 0$

$N_1 - \frac{V}{l} = 0$ $N_2 - \frac{W}{m} = 0$ $N_3 - \frac{X}{n} = 0$ $N_4 - \frac{Y}{o} = 0$ $N_5 - \frac{Z}{p} = 0$

$R - \frac{Y \cdot Z \cdot (V \cdot m + W \cdot l) \cdot (X^2 + n^2)}{o \cdot p \cdot (V \cdot X \cdot m \cdot n - V \cdot X^2 \cdot m + W \cdot X \cdot l \cdot n)} = 0$

4RST4AB4R0



$N_1 = 0.91756$
$N_2 = 2.01205$
$N_3 = 0.48642$
$N_4 = 1.29767$
$N_5 = 0.75549$
$R = 0.17469$

Unit. $AB := 1$ Given. $N_1 := .91756$ $N_2 := 2.01206$ $N_3 := .48642$ $N_4 := 1.29767$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $N_5 := .75549$

$V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $l := \frac{V}{N_1}$ $m := \frac{W}{N_2}$ $n := \frac{X}{N_3}$ $o := \frac{Y}{N_4}$ $p := \frac{Z}{N_5}$

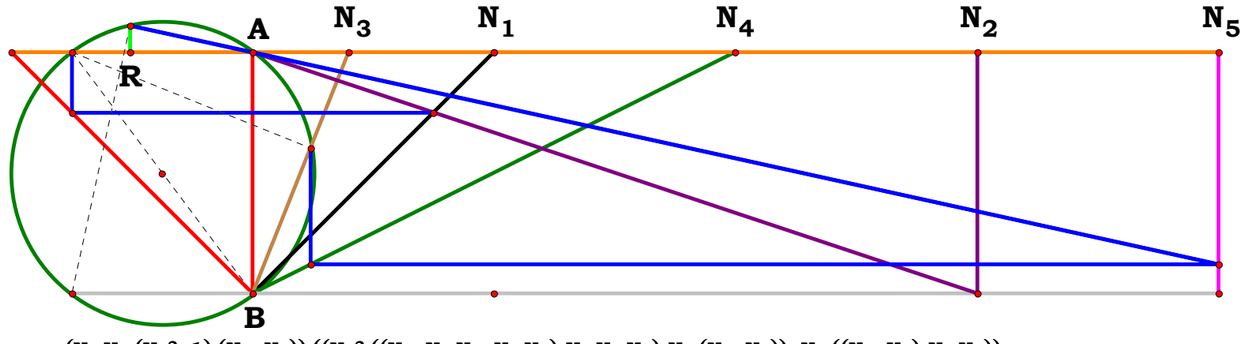
Descriptions.

$$AD := \frac{N_2}{N_1 + N_2} \qquad BN_3 := \sqrt{AB^2 + N_3^2} \qquad MN_3 := \frac{N_3 \cdot (N_3 + AD)}{BN_3}$$

$$BM := BN_3 - MN_3 \qquad BO := \frac{N_3 \cdot BM}{BN_3} \qquad KO := \frac{BO}{N_4}$$

$$BQ := \frac{N_5}{AB - KO} \qquad AQ := \sqrt{AB^2 + BQ^2} \qquad JQ := \frac{BQ \cdot (BQ + AD)}{AQ}$$

$$AJ := AQ - JQ \qquad R := \frac{BQ \cdot AJ}{AQ} \qquad R = 0.174688$$



$N_1 = 1.00000$
$N_2 = 3.00000$
$N_3 = 0.40000$
$N_4 = 2.00000$
$N_5 = 4.00000$
$R = -0.50573$

$$\frac{(N_4 \cdot N_5 \cdot (N_3^2+1) \cdot (N_1+N_2)) \cdot ((N_3^2 \cdot ((N_2+N_1 \cdot N_4+N_2 \cdot N_4)-N_2 \cdot N_4 \cdot N_5)-N_3 \cdot (N_1+N_2))+N_4 \cdot ((N_1+N_2)-N_2 \cdot N_5))}{(((N_4 \cdot (N_3^2+1) \cdot (N_1+N_2))^2 \cdot (N_5^2+1))-(2 \cdot N_3 \cdot N_4 \cdot (N_3^2+1) \cdot (N_1+N_2) \cdot ((N_1+N_2)-(N_2 \cdot N_3))))+(N_3 \cdot ((N_1+N_2)-(N_2 \cdot N_3)))^2} - R = 0.00000$$

Definitions.

$$R - \frac{N_4 \cdot N_5 \cdot \left(N_3^2 + 1\right) \cdot \left(N_1 + N_2\right) \cdot \left[N_3^2 \cdot \left(N_2 + N_1 \cdot N_4 + N_2 \cdot N_4 - N_2 \cdot N_4 \cdot N_5\right) - N_3 \cdot \left(N_1 + N_2\right) + N_4 \cdot \left(N_1 + N_2 - N_2 \cdot N_5\right)\right]}{N_4^2 \cdot \left(N_3^2 + 1\right)^2 \cdot \left(N_5^2 + 1\right) \cdot \left(N_1 + N_2\right)^2 - 2 \cdot N_4 \cdot N_3 \cdot \left(N_3^2 + 1\right) \cdot \left(N_1 + N_2\right) \cdot \left(N_1 + N_2 - N_2 \cdot N_3\right) + N_3^2 \cdot \left(N_1 + N_2 - N_2 \cdot N_3\right)^2} = 0$$

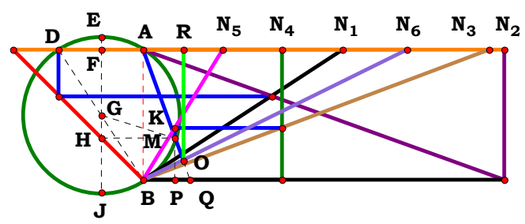
$$N_1 - \frac{N_u}{A} = 0 \qquad N_2 - \frac{N_u}{B} = 0 \qquad N_3 - \frac{N_u}{C} = 0 \qquad N_4 - \frac{N_u}{D} = 0 \qquad N_5 - \frac{N_u}{E} = 0$$

$$R - \frac{N_u \cdot \left(C^2 + N_u^2\right) \cdot (A + B) \cdot \left[C^2 \cdot E \cdot (A + B) - A \cdot N_u \cdot \left[C^2 - N_u \cdot \left(E - N_u\right)\right] + E \cdot N_u \cdot \left(A \cdot D + B \cdot N_u\right) - C \cdot D \cdot E \cdot (A + B)\right]}{E^2 \cdot \left[C^2 \cdot (A + B) + N_u^2 \cdot (A + B) - D \cdot \left[C \cdot (A + B) - A \cdot N_u\right]\right]^2 + N_u^2 \cdot \left(C^2 + N_u^2\right)^2 \cdot (A + B)^2} = 0$$

$$N_1 - \frac{V}{l} = 0 \qquad N_2 - \frac{W}{m} = 0 \qquad N_3 - \frac{X}{n} = 0 \qquad N_4 - \frac{Y}{o} = 0 \qquad N_5 - \frac{Z}{p} = 0$$

$$R - \frac{Y \cdot Z \cdot (V \cdot m + W \cdot l) \cdot \left(X^2 + n^2\right) \cdot \left[V \cdot m \cdot p \cdot \left(Y \cdot X^2 - o \cdot X \cdot n + Y \cdot n^2\right) - W \cdot l \cdot \left(X^2 \cdot Y \cdot Z + Y \cdot Z \cdot n^2 - X^2 \cdot Y \cdot p - Y \cdot n^2 \cdot p - X^2 \cdot o \cdot p + X \cdot n \cdot o \cdot p\right)\right]}{Y^2 \cdot \left(X^2 + n^2\right)^2 \cdot \left(Z^2 + p^2\right) \cdot (V \cdot m + W \cdot l)^2 + -2 \cdot Y \cdot X \cdot o \cdot p^2 \cdot \left(X^2 + n^2\right) \cdot (V \cdot m + W \cdot l) \cdot (V \cdot m \cdot n - W \cdot X \cdot l + W \cdot l \cdot n) + X^2 \cdot o^2 \cdot p^2 \cdot (V \cdot m \cdot n - W \cdot X \cdot l + W \cdot l \cdot n)^2} = 0$$

4RST4AB4R1



$N_1 = 1.52776$
$N_2 = 2.76754$
$N_3 = 2.65604$
$N_4 = 1.06521$
$N_5 = 0.61020$
$N_6 = 2.02433$
$R = 0.30553$

Unit. $AB := 1$ Given. $N_1 := 1.52776$ $N_2 := 2.76754$ $N_3 := 2.65604$

$N_4 := 1.06521$ $N_5 := .61020$ $N_6 := 2.02433$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $F := \frac{N_u}{N_6}$

Descriptions.

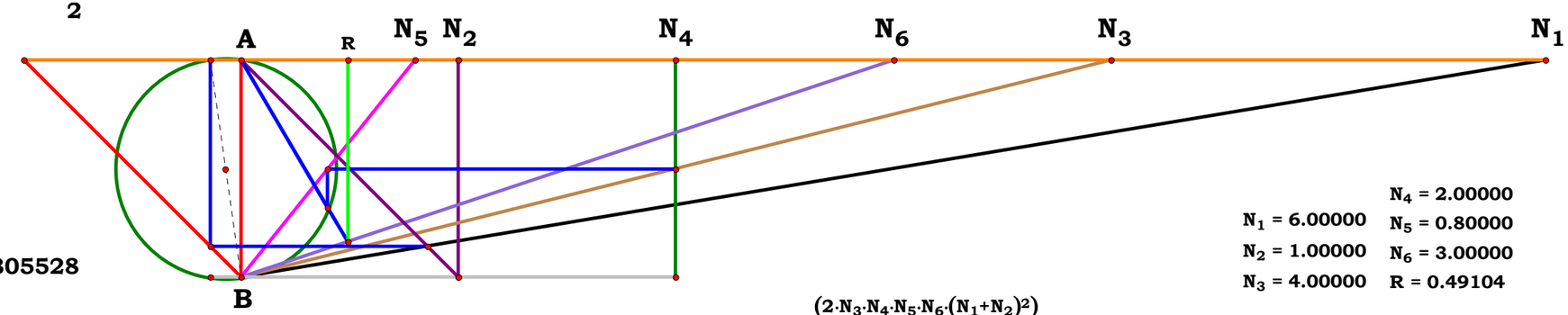
$AD := \frac{N_2}{N_1 + N_2}$ $EJ := \sqrt{AB^2 + AD^2}$ $AF := \frac{AD}{2}$

$BP := N_5 \cdot \frac{N_4}{N_3}$ $HM := AF + BP$

$GH := \sqrt{\left(\frac{EJ}{2}\right)^2 - HM^2}$ $FH := \frac{AB}{2} + GH$

$BQ := \frac{HM - AF}{FH}$ $R := \frac{BQ \cdot N_6}{BQ + N_6}$ $R = 0.305528$

$U := 18$ $V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $k := \frac{U}{N_1}$ $l := \frac{V}{N_2}$ $m := \frac{W}{N_3}$ $n := \frac{X}{N_4}$ $o := \frac{Y}{N_5}$ $p := \frac{Z}{N_6}$



$N_1 = 6.00000$ $N_4 = 2.00000$
$N_2 = 1.00000$ $N_5 = 0.80000$
$N_3 = 4.00000$ $N_6 = 3.00000$
$R = 0.49104$

$$\frac{(2 \cdot N_3 \cdot N_4 \cdot N_5 \cdot N_6 \cdot (N_1 + N_2)^2)}{N_6 \cdot \sqrt{(N_3^2 \cdot (N_1 + N_2)^3) \cdot (N_3^2 \cdot (N_1 + N_2) - 4 \cdot N_4 \cdot N_5 \cdot (N_2 \cdot N_3 + N_4 \cdot N_5 \cdot (N_1 + N_2)))} + (N_3 \cdot (N_3 \cdot N_6 + 2 \cdot N_4 \cdot N_5) \cdot (N_1 + N_2)^2)} - R = 0.00000$$

Definitions.

$$R - \frac{2 \cdot N_4 \cdot N_5 \cdot N_6 \cdot \sqrt{N_3^2}}{\sqrt{N_3^2} \cdot (N_3 \cdot N_6 + 2 \cdot N_4 \cdot N_5) + N_3 \cdot N_6 \cdot \sqrt{N_3^2 - 4 \cdot AD \cdot N_3 \cdot N_4 \cdot N_5 - 4 \cdot N_4^2 \cdot N_5^2}} = 0$$

$$R - \frac{2 \cdot N_4 \cdot N_5 \cdot N_6 \cdot \sqrt{N_3^2 \cdot (N_1 + N_2)}}{N_3 \cdot N_6 \cdot \sqrt{N_3^2 \cdot (N_1 + N_2) - 4 \cdot N_4 \cdot N_5 \cdot [N_2 \cdot N_3 + N_4 \cdot N_5 \cdot (N_1 + N_2)]} + \sqrt{N_3^2 \cdot (N_1 + N_2)} \cdot (N_3 \cdot N_6 + 2 \cdot N_4 \cdot N_5)} = 0$$

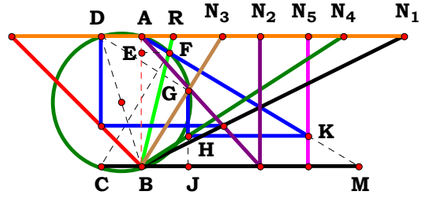
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$ $N_6 - \frac{N_u}{F} = 0$

$$R - \frac{2 \cdot C \cdot N_u \cdot (A + B)}{\sqrt{[D^2 \cdot E^2 \cdot (A + B) - 4 \cdot C \cdot N_u \cdot [C \cdot N_u \cdot (A + B) + A \cdot D \cdot E]] \cdot (A + B)} + (2 \cdot C \cdot F + D \cdot E) \cdot (A + B)} = 0$$

$N_1 - \frac{U}{k} = 0$ $N_2 - \frac{V}{l} = 0$ $N_3 - \frac{W}{m} = 0$ $N_4 - \frac{X}{n} = 0$ $N_5 - \frac{Y}{o} = 0$ $N_6 - \frac{Z}{p} = 0$

$$R - \frac{2 \cdot X \cdot Y \cdot Z \cdot \sqrt{U \cdot l + V \cdot k} \cdot m}{Z \cdot \sqrt{U \cdot W^2 \cdot l \cdot n^2 \cdot o^2 - 4 \cdot X^2 \cdot Y^2 \cdot m^2 \cdot (U \cdot l + V \cdot k) + V \cdot W \cdot k \cdot n \cdot o \cdot (W \cdot n \cdot o - 4 \cdot X \cdot Y \cdot m)} + \sqrt{U \cdot l + V \cdot k} \cdot (W \cdot Z \cdot n \cdot o + 2 \cdot X \cdot Y \cdot m \cdot p)} = 0$$

4RST4AB4R2



$N_1 = 2.01205$
$N_2 = 0.90787$
$N_3 = 0.62203$
$N_4 = 1.54950$
$N_5 = 1.27852$
$R = 0.24327$

Unit. $AB := 1$ Given. $N_1 := 2.01205$ $N_2 := .90787$ $N_3 := .62203$

$N_4 := 1.54950$ $N_5 := 1.27852$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$

$V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $l := \frac{V}{N_1}$ $m := \frac{W}{N_2}$ $n := \frac{X}{N_3}$ $o := \frac{Y}{N_4}$ $p := \frac{Z}{N_5}$

Descriptions.

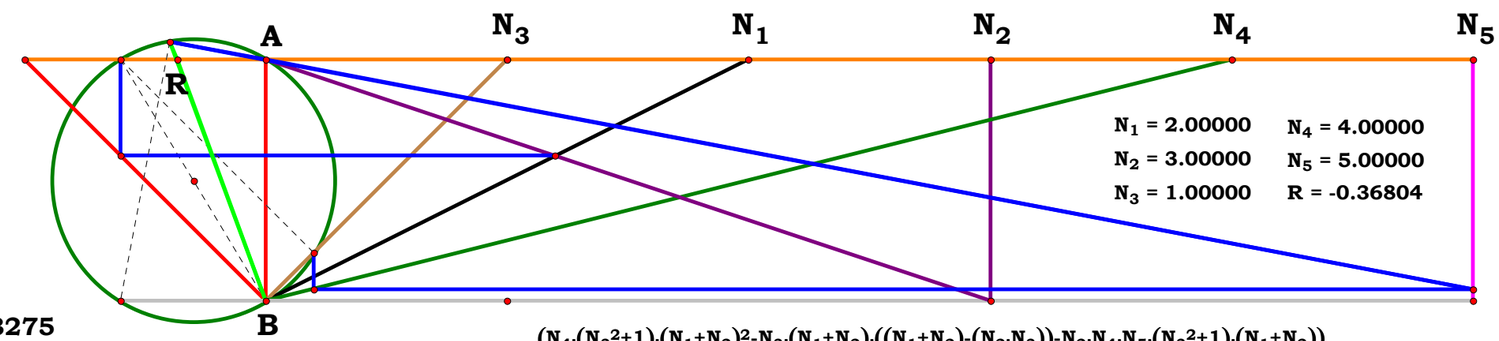
$$AD := \frac{N_2}{N_1 + N_2} \qquad BN_3 := \sqrt{AB^2 + N_3{}^2} \qquad HN_3 := \frac{N_3 \cdot (N_3 + AD)}{BN_3}$$

$$BH := BN_3 - HN_3 \qquad BJ := \frac{N_3 \cdot BH}{BN_3} \qquad GJ := \frac{BJ}{N_4}$$

$$BM := \frac{N_5}{AB - GJ} \qquad AM := \sqrt{AB^2 + BM^2}$$

$$FM := \frac{BM \cdot (BM + AD)}{AM} \qquad AF := AM - FM$$

$$EF := \frac{BM \cdot AF}{AM} \qquad AE := \frac{AF}{AM} \qquad R := \frac{EF}{AB - AE} \qquad R = 0.243275$$



$$\frac{(N_4 \cdot (N_3{}^2+1) \cdot (N_1+N_2)^2 - N_3 \cdot (N_1+N_2) \cdot ((N_1+N_2) - (N_2 \cdot N_3)) - N_2 \cdot N_4 \cdot N_5 \cdot (N_3{}^2+1) \cdot (N_1+N_2))}{((N_4 \cdot N_5 \cdot (N_3{}^2+1) \cdot (N_1+N_2)^2 + N_2 \cdot N_4 \cdot (N_3{}^2+1) \cdot (N_1+N_2)) - N_2 \cdot N_3 \cdot ((N_1+N_2) - (N_2 \cdot N_3)))} - R = 0.00000$$

Definitions.

$$R - \frac{N_4 \cdot (N_3{}^2 + 1) \cdot (N_1 + N_2)^2 - N_3 \cdot (N_1 + N_2) \cdot (N_1 + N_2 - N_2 \cdot N_3) - N_5 \cdot N_2 \cdot N_4 \cdot (N_3{}^2 + 1) \cdot (N_1 + N_2)}{N_4 \cdot N_5 \cdot (N_1 + N_2)^2 \cdot (N_3{}^2 + 1) + N_4 \cdot N_2 \cdot (N_3{}^2 + 1) \cdot (N_1 + N_2) - N_2 \cdot N_3 \cdot (N_1 + N_2 - N_2 \cdot N_3)} = 0$$

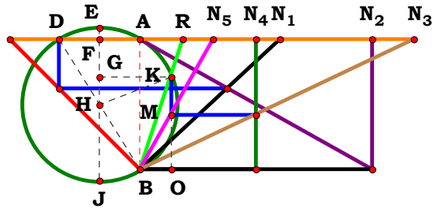
$$N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0 \quad N_4 - \frac{N_u}{D} = 0 \quad N_5 - \frac{N_u}{E} = 0$$

$$R - \frac{(A+B) \cdot \left[E \cdot \left[C^2 \cdot (A+B) + N_u{}^2 \cdot (A+B) - C \cdot D \cdot (A+B) + A \cdot D \cdot N_u\right] - \left[A \cdot N_u \cdot \left(C^2 + N_u{}^2\right)\right]\right]}{E \cdot A \cdot \left[C^2 \cdot (A+B) + N_u{}^2 \cdot (A+B) - C \cdot D \cdot (A+B) + A \cdot D \cdot N_u\right] + N_u \cdot \left(C^2 + N_u{}^2\right) \cdot (A+B)^2} = 0$$

$$N_1 - \frac{V}{l} = 0 \quad N_2 - \frac{W}{m} = 0 \quad N_3 - \frac{X}{n} = 0 \quad N_4 - \frac{Y}{o} = 0 \quad N_5 - \frac{Z}{p} = 0$$

$$R - \frac{(V \cdot m + W \cdot l) \cdot \left[Y \cdot \left(X^2 + n^2\right) \cdot (V \cdot m \cdot p - W \cdot Z \cdot l + W \cdot l \cdot p) + X \cdot o \cdot p \cdot (W \cdot X \cdot l - V \cdot m \cdot n - W \cdot l \cdot n)\right]}{Y \cdot \left(X^2 + n^2\right) \cdot (V \cdot m + W \cdot l) \cdot (V \cdot Z \cdot m + W \cdot Z \cdot l + W \cdot l \cdot p) + W \cdot X \cdot l \cdot o \cdot p \cdot (W \cdot X \cdot l - V \cdot m \cdot n - W \cdot l \cdot n)} = 0$$

4RST4AB4R3



$N_1 = 1.07253$
$N_2 = 1.77959$
$N_3 = 2.10395$
$N_4 = 0.89086$
$N_5 = 0.56178$
$R = 0.33403$

Unit. $AB := 1$ **Given.** $N_1 := 1.07253$ $N_2 := 1.77959$ $N_3 := 2.10395$ $N_4 := .89086$ $N_5 := .56178$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$

$V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $l := \frac{V}{N_1}$ $m := \frac{W}{N_2}$ $n := \frac{X}{N_3}$ $o := \frac{Y}{N_4}$ $p := \frac{Z}{N_5}$

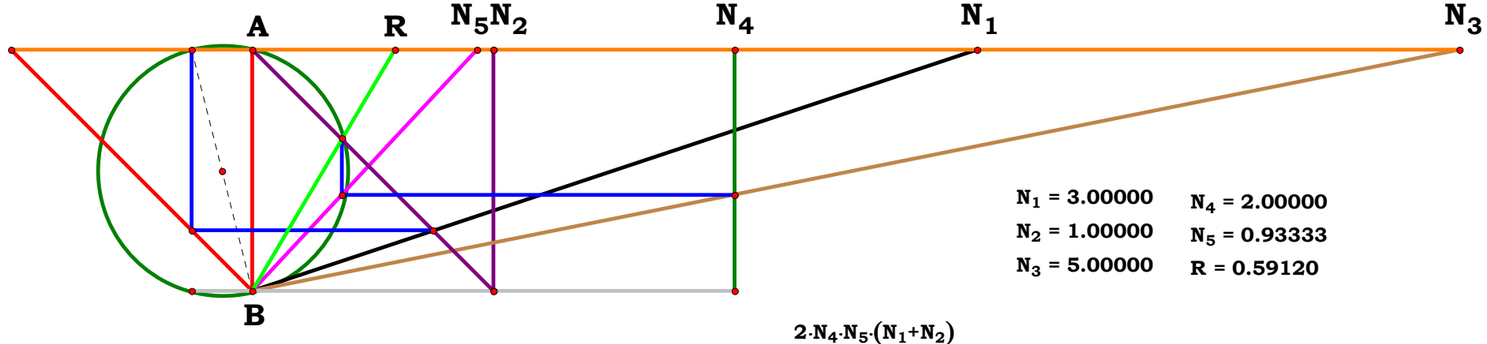
Descriptions.

$AD := \frac{N_2}{N_1 + N_2}$ $MO := \frac{N_4}{N_3}$ $BO := N_5 \cdot MO$

$GK := \frac{AD}{2} + BO$ $EJ := \sqrt{AB^2 + AD^2}$

$GH := \sqrt{\left(\frac{EJ}{2}\right)^2 - GK^2}$ $EF := \frac{EJ - AB}{2}$

$KO := \frac{EJ}{2} + GH - EF$ $R := \frac{BO}{KO}$ $R = 0.334028$



$N_1 = 3.00000$ $N_4 = 2.00000$
$N_2 = 1.00000$ $N_5 = 0.93333$
$N_3 = 5.00000$ $R = 0.59120$

$$\frac{2 \cdot N_4 \cdot N_5 \cdot (N_1 + N_2)}{N_3 \cdot (N_1 + N_2) + \sqrt{(N_3 \cdot (N_1 + N_2))^2 - 4 \cdot N_4 \cdot N_5 \cdot (N_2 \cdot N_3 + N_4 \cdot N_5 \cdot (N_1 + N_2)) \cdot (N_1 + N_2)}} - R = 0.00000$$

Definitions.

$$R - \frac{2 \cdot N_4 \cdot N_5 \cdot \sqrt{N_3^2 \cdot (N_1 + N_2)^2}}{N_3 \cdot \sqrt{N_3^2 \cdot (N_1 + N_2)^2 - 4 \cdot N_4 \cdot N_5 \cdot (N_1 + N_2) \cdot [N_2 \cdot N_3 + N_4 \cdot N_5 \cdot (N_1 + N_2)]} + N_3 \cdot \sqrt{N_3^2 \cdot (N_1 + N_2)^2}} = 0$$

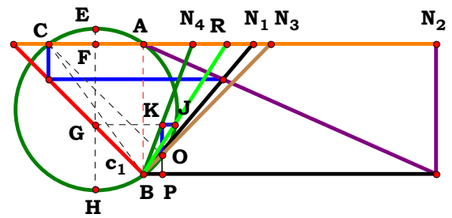
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$

$$R - \frac{2 \cdot C \cdot N_u \cdot (A + B)}{\sqrt{[D^2 \cdot E^2 \cdot (A + B) - 4 \cdot C \cdot N_u \cdot [C \cdot N_u \cdot (A + B) + A \cdot D \cdot E]] \cdot (A + B)} + D \cdot E \cdot (A + B)} = 0$$

$N_1 - \frac{V}{l} = 0$ $N_2 - \frac{W}{m} = 0$ $N_3 - \frac{X}{n} = 0$ $N_4 - \frac{Y}{o} = 0$ $N_5 - \frac{Z}{p} = 0$

$$R - \frac{2 \cdot Y \cdot Z \cdot (V \cdot m + W \cdot l) \cdot n}{\sqrt{[(V \cdot m + W \cdot l) \cdot [X \cdot o \cdot p \cdot (V \cdot X \cdot m \cdot o \cdot p - 4 \cdot W \cdot Y \cdot Z \cdot l \cdot n + W \cdot X \cdot l \cdot o \cdot p) - 4 \cdot Y^2 \cdot Z^2 \cdot n^2 \cdot (V \cdot m + W \cdot l)]] + X \cdot o \cdot p \cdot (V \cdot m + W \cdot l)} = 0$$

4RST4AB4R4



$N_1 = 0.84007$
$N_2 = 2.24451$
$N_3 = 0.98040$
$N_4 = 0.37752$
$R = 0.63945$

Unit. $AB := 1$ Given. $N_1 := .84007$ $N_2 := 2.24451$ $N_3 := .98040$ $N_4 := .37752$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

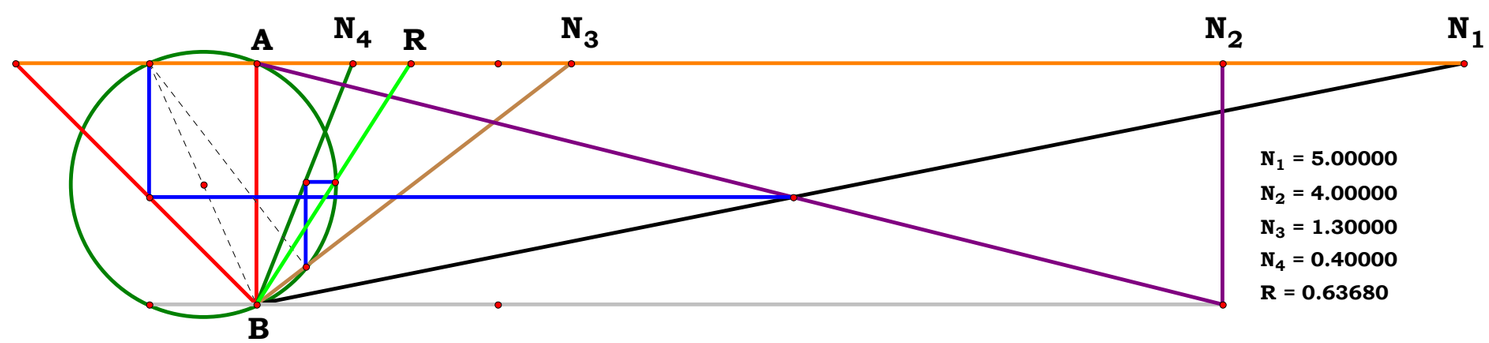
$AC := \frac{N_2}{N_1 + N_2}$ $EH := \sqrt{AB^2 + AC^2}$ $EF := \frac{EH - AB}{2}$

$BN_3 := \sqrt{AB^2 + N_3^2}$ $ON_3 := \frac{N_3 \cdot (N_3 + AC)}{BN_3}$

$BO := BN_3 - ON_3$ $BP := \frac{N_3 \cdot BO}{BN_3}$ $KP := \frac{BP}{N_4}$

$GH := KP + EF$ $EG := EH - GH$

$GP := \sqrt{EG \cdot GH}$ $R := \frac{GP - \frac{AC}{2}}{KP}$ $R = 0.63945$



$N_1 = 5.00000$
$N_2 = 4.00000$
$N_3 = 1.30000$
$N_4 = 0.40000$
$R = 0.63680$

$$\frac{(N_1+N_2)\cdot\left(\sqrt{((N_2\cdot N_4)\cdot(N_3^2+1))^2+4\cdot N_3\cdot((N_1+N_2)-(N_2\cdot N_3))\cdot(N_4\cdot(N_3^2+1)\cdot(N_1+N_2)-N_3\cdot((N_1+N_2)-(N_2\cdot N_3)))}-(N_2\cdot N_4)-N_2\cdot N_3^2\cdot N_4\right)}{2\cdot N_3\cdot(N_1+N_2)\cdot((N_1+N_2)-(N_2\cdot N_3))} - R = 0.00000$$

Definitions.

$$R - \frac{\sqrt{N_4^2}\cdot AC\cdot N_4\cdot\left(N_3^2+1\right) - N_4\cdot\sqrt{N_3\cdot N_4\cdot\left[AC\cdot N_3\cdot\left(2\cdot AC\cdot N_4 - 4\cdot N_3^2 + AC\cdot N_3^2\cdot N_4 - 4\right) + 4\cdot N_3^2 + 4\right] + 4\cdot N_3^2\cdot\left[AC\cdot N_3\cdot\left(2 - AC\cdot N_3\right) - 1\right] + AC^2\cdot N_4^2}}{2\cdot\sqrt{N_4^2}\cdot N_3\cdot\left(AC\cdot N_3 - 1\right)} = 0$$

$$R - \frac{\sqrt{N_2^2\cdot N_4^2\cdot\left(N_3^2+1\right)^2 - 4\cdot N_3^2\cdot\left(N_1+N_2-N_2\cdot N_3\right)^2 + 4\cdot N_3\cdot N_4\cdot\left(N_1+N_2\right)\cdot\left(N_3^2+1\right)\cdot\left(N_1+N_2-N_2\cdot N_3\right)} - N_2\cdot N_4\cdot\left(N_3^2+1\right)}{2\cdot N_3\cdot\left(N_1+N_2-N_2\cdot N_3\right)} = 0$$

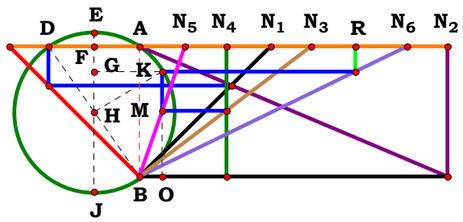
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{\sqrt{A^2\cdot\left(C^2+N_u^2\right)^2 + 4\cdot D\cdot\left[C\cdot(A+B) - A\cdot N_u\right]\cdot\left[(A+B)\cdot C^2 - D\cdot(A+B)\cdot C + (A+B)\cdot N_u^2 + A\cdot D\cdot N_u\right]} - A\cdot\left(C^2+N_u^2\right)}{2\cdot D\cdot\left(A\cdot C + B\cdot C - A\cdot N_u\right)} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{\sqrt{Z^2\cdot X^2\cdot m^2\cdot\left(Y^2+o^2\right)^2 + 4\cdot Z\cdot Y\cdot p\cdot\left(Y^2+o^2\right)\cdot(W\cdot n + X\cdot m)\cdot(W\cdot n\cdot o - X\cdot Y\cdot m + X\cdot m\cdot o) - 4\cdot Y^2\cdot p^2\cdot(W\cdot n\cdot o - X\cdot Y\cdot m + X\cdot m\cdot o)^2} - X\cdot Z\cdot m\cdot\left(Y^2+o^2\right)}{2\cdot Y\cdot p\cdot(W\cdot n\cdot o - X\cdot Y\cdot m + X\cdot m\cdot o)} = 0$$

4RST4AB4R5



$N_1 = 1.00473$ $N_5 = 0.34869$
$N_2 = 2.36074$ $N_6 = 2.05339$
$N_3 = 1.31704$ $R = 1.65618$
$N_4 = 0.67045$

Unit. $AB := 1$ Given. $N_1 := 1.00473$ $N_2 := 2.36074$ $N_3 := 1.31704$

$N_4 := .67045$ $N_5 := .34869$ $N_6 := 2.05339$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $F := \frac{N_u}{N_6}$

Descriptions.

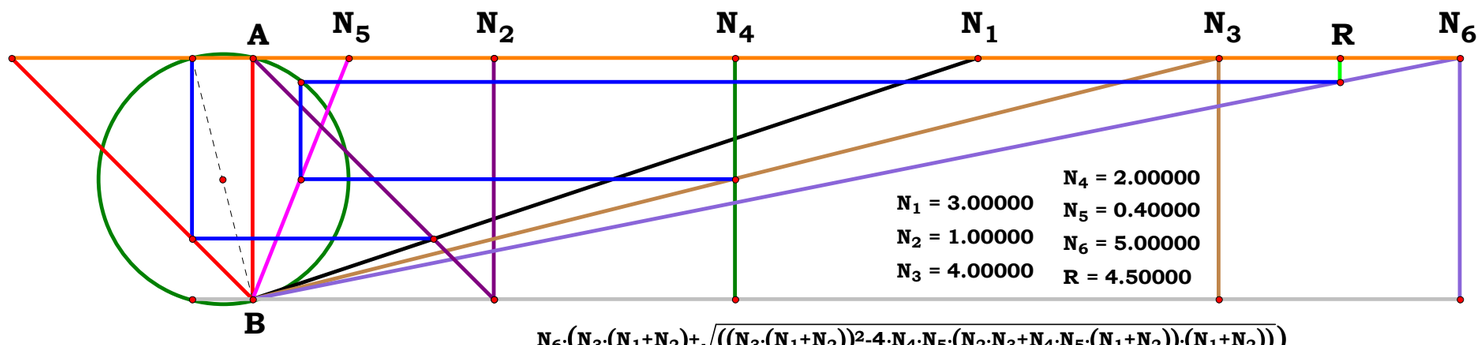
$AD := \frac{N_2}{N_1 + N_2}$ $MO := \frac{N_4}{N_3}$ $BO := N_5 \cdot MO$

$FK := BO + \frac{AD}{2}$ $EJ := \sqrt{AD^2 + AB^2}$ $HK := \frac{EJ}{2}$

$FH := \sqrt{HK^2 - FK^2}$ $EF := \frac{EJ - AB}{2}$

$KO := HK + FH - EF$ $R := N_6 \cdot KO$ $R = 1.656189$

$U := 18$ $V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $k := \frac{U}{N_1}$ $l := \frac{V}{N_2}$ $m := \frac{W}{N_3}$ $n := \frac{X}{N_4}$ $o := \frac{Y}{N_5}$ $p := \frac{Z}{N_6}$



$$\frac{N_6 \cdot \left(N_3 \cdot (N_1 + N_2) + \sqrt{\left((N_3 \cdot (N_1 + N_2))^2 - 4 \cdot N_4 \cdot N_5 \cdot (N_2 \cdot N_3 + N_4 \cdot N_5 \cdot (N_1 + N_2)) \cdot (N_1 + N_2)\right)}\right)}{2 \cdot N_3 \cdot (N_1 + N_2)} - R = 0.00000$$

Definitions.

$$R - \frac{N_6 \cdot \left[\sqrt{N_3^2 \cdot (N_1 + N_2)^2 - 4 \cdot N_4 \cdot N_5 \cdot (N_1 + N_2) \cdot (N_2 \cdot N_3 + N_1 \cdot N_4 \cdot N_5 + N_2 \cdot N_4 \cdot N_5)}\right] + N_3 \cdot (N_1 + N_2)}{2 \cdot N_3 \cdot (N_1 + N_2)} = 0$$

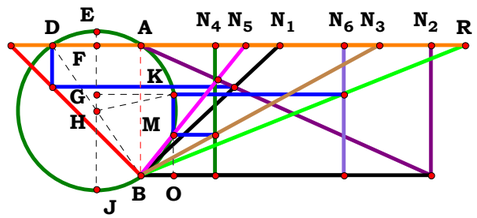
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$ $N_6 - \frac{N_u}{F} = 0$

$$R - \frac{N_u \cdot \left[\sqrt{\left[D^2 \cdot E^2 \cdot (A + B) - 4 \cdot C \cdot N_u \cdot \left[C \cdot N_u \cdot (A + B) + A \cdot D \cdot E\right]\right] \cdot (A + B)} + D \cdot E \cdot (A + B)\right]}{2 \cdot F \cdot (A + B) \cdot D \cdot E} = 0$$

$N_1 - \frac{U}{k} = 0$ $N_2 - \frac{V}{l} = 0$ $N_3 - \frac{W}{m} = 0$ $N_4 - \frac{X}{n} = 0$ $N_5 - \frac{Y}{o} = 0$ $N_6 - \frac{Z}{p} = 0$

$$R - \frac{Z \cdot \left[\sqrt{\left[(U \cdot l + V \cdot k) \cdot \left[W^2 \cdot n^2 \cdot o^2 \cdot (U \cdot l + V \cdot k) - 4 \cdot X \cdot Y \cdot m \cdot (U \cdot X \cdot Y \cdot l \cdot m + V \cdot X \cdot Y \cdot k \cdot m + V \cdot W \cdot k \cdot n \cdot o)\right]\right] + W \cdot n \cdot o \cdot (U \cdot l + V \cdot k)\right]}{2 \cdot W \cdot p \cdot (U \cdot l + V \cdot k) \cdot n \cdot o} = 0$$

4RST4AB4R6



$N_1 = 1.06284$
$N_2 = 2.22514$
$N_3 = 1.83038$
$N_4 = 0.57360$
$N_5 = 0.80392$
$N_6 = 1.55941$
$R = 2.48850$

Unit. $AB := 1$ **Given.** $N_1 := 1.06284$ $N_2 := 2.22514$ $N_3 := 1.83038$

$N_4 := .57360$ $N_5 := .80392$ $N_6 := 1.55941$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $F := \frac{N_u}{N_6}$

$U := 18$ $V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$k := \frac{U}{N_1}$ $l := \frac{V}{N_2}$ $m := \frac{W}{N_3}$ $n := \frac{X}{N_4}$ $o := \frac{Y}{N_5}$ $p := \frac{Z}{N_6}$

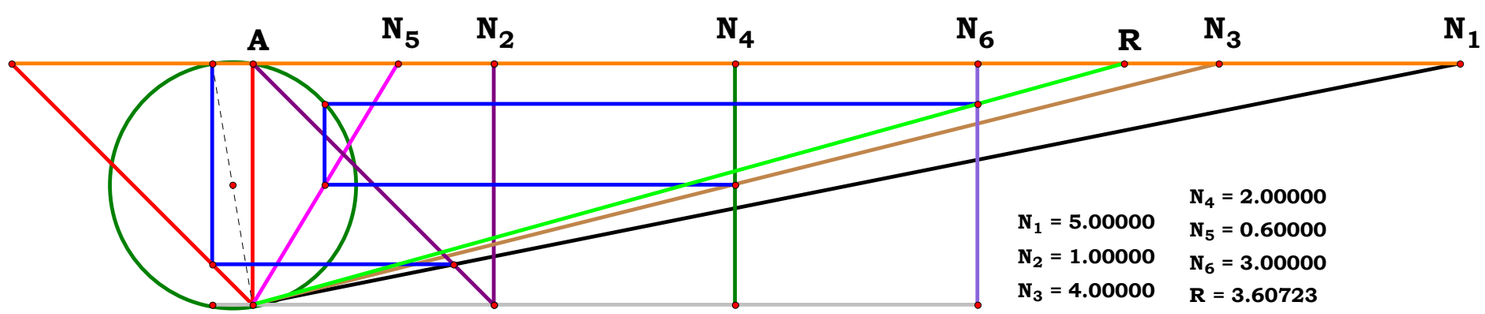
Descriptions.

$AD := \frac{N_2}{N_1 + N_2}$ $MO := \frac{N_4}{N_3}$ $BO := N_5 \cdot MO$

$EJ := \sqrt{AD^2 + AB^2}$ $EF := \frac{EJ - AB}{2}$ $HK := \frac{EJ}{2}$

$GK := \frac{AD}{2} + BO$ $GH := \sqrt{HK^2 - GK^2}$

$KO := HK + GH - EF$ $R := \frac{N_6}{KO}$ $R = 2.488535$



$N_1 = 5.00000$
$N_2 = 1.00000$
$N_3 = 4.00000$
$N_4 = 2.00000$
$N_5 = 0.60000$
$N_6 = 3.00000$
$R = 3.60723$

Definitions.

$$R - \frac{2 \cdot N_3 \cdot N_6 \cdot (N_1 + N_2)}{\sqrt{(N_1 + N_2)^2 \cdot (N_3^2 - 4 \cdot N_4^2 \cdot N_5^2) - 4 \cdot N_2 \cdot N_3 \cdot N_4 \cdot N_5 \cdot (N_1 + N_2)} + N_3 \cdot (N_1 + N_2)} = 0$$

$$\frac{2 \cdot N_3 \cdot N_6 \cdot (N_1 + N_2)}{N_3 \cdot (N_1 + N_2) + \sqrt{(N_1 + N_2)^2 \cdot (N_3^2 - 4 \cdot N_4^2 \cdot N_5^2) - 4 \cdot N_2 \cdot N_3 \cdot N_4 \cdot N_5 \cdot (N_1 + N_2)}} - R = 0.00000$$

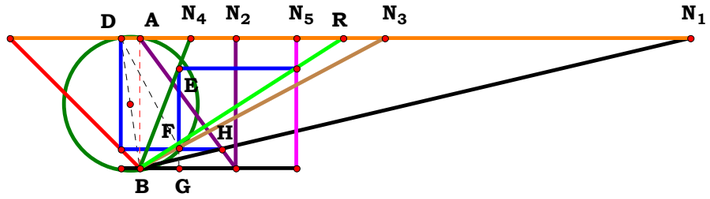
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$ $N_6 - \frac{N_u}{F} = 0$

$$R - \frac{2 \cdot N_u \cdot (A + B) \cdot D \cdot E}{F \cdot \left[\sqrt{\left[D^2 \cdot E^2 \cdot (A + B) - 4 \cdot C \cdot N_u \cdot \left[C \cdot N_u \cdot (A + B) + A \cdot D \cdot E\right]\right] \cdot (A + B)} + D \cdot E \cdot (A + B)\right]} = 0$$

$N_1 - \frac{U}{k} = 0$ $N_2 - \frac{V}{l} = 0$ $N_3 - \frac{W}{m} = 0$ $N_4 - \frac{X}{n} = 0$ $N_5 - \frac{Y}{o} = 0$ $N_6 - \frac{Z}{p} = 0$

$$R - \frac{2 \cdot W \cdot Z \cdot (U \cdot l + V \cdot k) \cdot n \cdot o}{p \cdot \left[\sqrt{\left[(U \cdot l + V \cdot k) \cdot \left[W^2 \cdot n^2 \cdot o^2 \cdot (U \cdot l + V \cdot k) - 4 \cdot X \cdot Y \cdot m \cdot [U \cdot X \cdot Y \cdot l \cdot m + V \cdot k \cdot (X \cdot Y \cdot m + W \cdot n \cdot o)]\right]\right] + W \cdot n \cdot o \cdot (U \cdot l + V \cdot k)\right]} = 0$$

4RST4AB4R7



$N_1 = 4.22041$
$N_2 = 0.73353$
$N_3 = 1.88118$
$N_4 = 0.38720$
$N_5 = 1.20104$
$R = 1.55525$

Unit. $AB := 1$ Given. $N_1 := 4.22041$ $N_2 := .73353$ $N_3 := 1.88118$

$N_4 := .38720$ $N_5 := 1.20104$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$

$V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $l := \frac{V}{N_1}$ $m := \frac{W}{N_2}$ $n := \frac{X}{N_3}$ $o := \frac{Y}{N_4}$ $p := \frac{Z}{N_5}$

Descriptions.

$$AD := \frac{N_2}{N_1 + N_2} \qquad BN_3 := \sqrt{AB^2 + N_3{}^2}$$

$$FN_3 := \frac{N_3 \cdot (N_3 + AD)}{BN_3} \qquad BF := BN_3 - FN_3$$

$$BG := \frac{N_3 \cdot BF}{BN_3} \qquad EG := \frac{BG}{N_4} \qquad R := \frac{N_5}{EG} \qquad R = 1.555245$$

Definitions.

$$R - \frac{N_4 \cdot N_5 \cdot (N_1 + N_2) \cdot (N_3{}^2 + 1)}{N_3 \cdot (N_1 + N_2 - N_2 \cdot N_3)} = 0$$

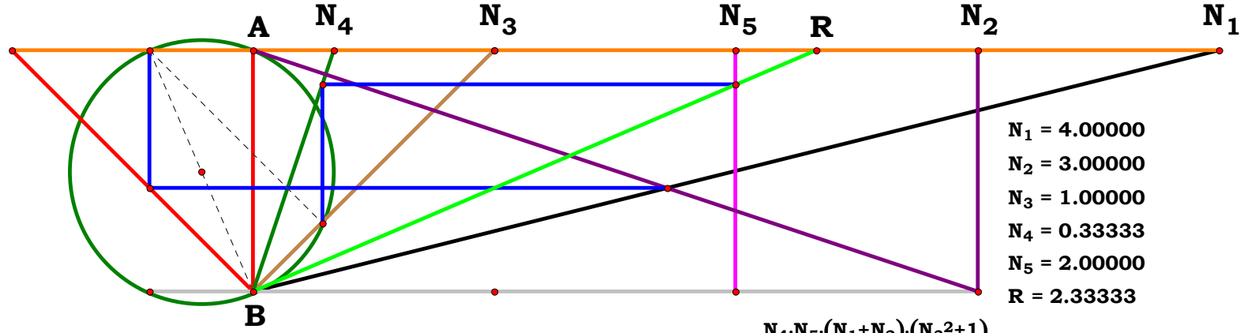
$$N_1 - \frac{N_u}{A} = 0 \qquad N_2 - \frac{N_u}{B} = 0$$

$$N_3 - \frac{N_u}{C} = 0 \qquad N_4 - \frac{N_u}{D} = 0 \qquad N_5 - \frac{N_u}{E} = 0$$

$$R - \frac{N_u \cdot (C^2 + N_u{}^2) \cdot (A + B)}{D \cdot E \cdot [C \cdot (A + B) - A \cdot N_u]} = 0$$

$$N_1 - \frac{V}{l} = 0 \qquad N_2 - \frac{W}{m} = 0 \qquad N_3 - \frac{X}{n} = 0 \qquad N_4 - \frac{Y}{o} = 0 \qquad N_5 - \frac{Z}{p} = 0$$

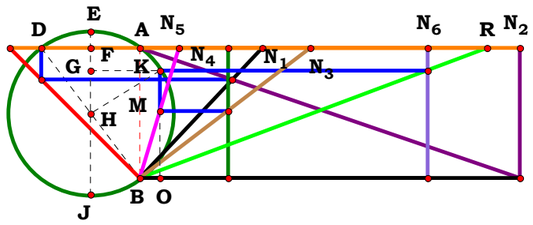
$$R - \frac{Y \cdot Z \cdot (V \cdot m + W \cdot l) \cdot (X^2 + n^2)}{o \cdot p \cdot (V \cdot X \cdot m \cdot n - W \cdot X^2 \cdot l + W \cdot X \cdot l \cdot n)} = 0$$



$N_1 = 4.00000$
$N_2 = 3.00000$
$N_3 = 1.00000$
$N_4 = 0.33333$
$N_5 = 2.00000$
$R = 2.33333$

$$\frac{N_4 \cdot N_5 \cdot (N_1 + N_2) \cdot (N_3{}^2 + 1)}{N_3 \cdot (N_1 + N_2) - N_2 \cdot N_3} - R = 0.00000$$

4RST4AB4R8



$N_1 = 0.93693$
$N_2 = 2.91283$
$N_3 = 1.30735$
$N_4 = 0.68014$
$N_5 = 0.30026$
$N_6 = 2.20836$
$R = 2.66796$

Unit. $AB := 1$ **Given.** $N_1 := .93693$ $N_2 := 2.91283$ $N_3 := 1.30735$ $N_4 := .68014$ $N_5 := .30026$ $N_6 := 2.20836$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $F := \frac{N_u}{N_6}$

$U := 18$ $V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$k := \frac{U}{N_1}$ $l := \frac{V}{N_2}$ $m := \frac{W}{N_3}$ $n := \frac{X}{N_4}$ $o := \frac{Y}{N_5}$ $p := \frac{Z}{N_6}$

Descriptions.

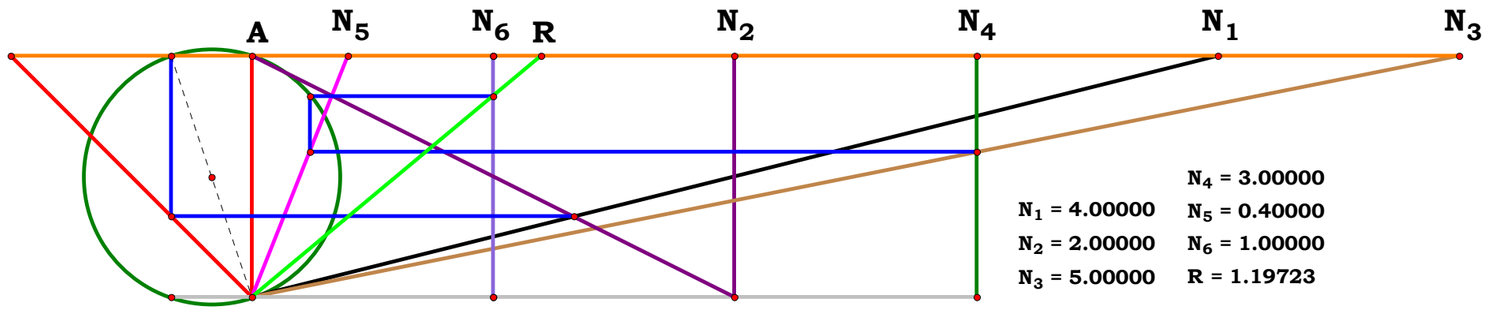
$$AD := \frac{N_2}{N_1 + N_2} \qquad EJ := \sqrt{AD^2 + AB^2} \qquad EF := \frac{EJ - AB}{2}$$

$$MO := \frac{N_4}{N_3} \qquad BO := N_5 \cdot MO \qquad GK := BO + \frac{AD}{2}$$

$$HK := \frac{EJ}{2} \qquad GH := \sqrt{HK^2 - GK^2}$$

$$KO := HK + GH - EF \qquad R := \frac{N_6}{KO}$$

$R = 2.667968$



$N_1 = 4.00000$ $N_4 = 3.00000$
$N_2 = 2.00000$ $N_5 = 0.40000$
$N_3 = 5.00000$ $N_6 = 1.00000$
$R = 1.19723$

Definitions.

$$R - \frac{2 \cdot N_3 \cdot N_6 \cdot (N_1 + N_2)}{\sqrt{(N_1 + N_2)^2 \cdot (N_3^2 - 4 \cdot N_4^2 \cdot N_5^2) - 4 \cdot N_2 \cdot N_3 \cdot N_4 \cdot N_5 \cdot (N_1 + N_2)} + N_3 \cdot (N_1 + N_2)} = 0$$

$$N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0 \quad N_4 - \frac{N_u}{D} = 0 \quad N_5 - \frac{N_u}{E} = 0 \quad N_6 - \frac{N_u}{F} = 0$$

$$R - \frac{2 \cdot N_u \cdot (A + B) \cdot D \cdot E}{F \cdot \left[\sqrt{\left[D^2 \cdot E^2 \cdot (A + B) - 4 \cdot C \cdot N_u \cdot \left[C \cdot N_u \cdot (A + B) + A \cdot D \cdot E\right]\right]} \cdot (A + B) + D \cdot E \cdot (A + B)\right]} = 0$$

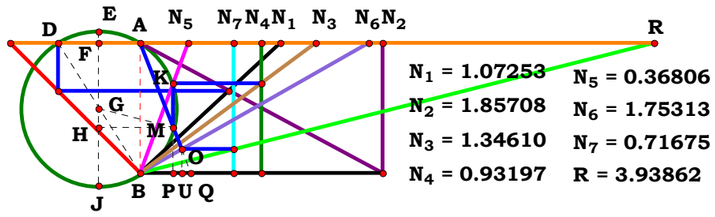
$$N_1 - \frac{U}{k} = 0 \quad N_2 - \frac{V}{l} = 0 \quad N_3 - \frac{W}{m} = 0 \quad N_4 - \frac{X}{n} = 0 \quad N_5 - \frac{Y}{o} = 0 \quad N_6 - \frac{Z}{p} = 0$$

$$R - \frac{2 \cdot W \cdot Z \cdot (U \cdot l + V \cdot k) \cdot n \cdot o}{p \cdot \left[\sqrt{\left[(U \cdot l + V \cdot k) \cdot \left[W^2 \cdot n^2 \cdot o^2 \cdot (U \cdot l + V \cdot k) - 4 \cdot X \cdot Y \cdot m \cdot [U \cdot X \cdot Y \cdot l \cdot m + V \cdot k \cdot (X \cdot Y \cdot m + W \cdot n \cdot o)]\right]\right]} + W \cdot n \cdot o \cdot (U \cdot l + V \cdot k)\right]} = 0$$

B

$$\frac{2 \cdot N_3 \cdot N_6 \cdot (N_1 + N_2)}{N_3 \cdot (N_1 + N_2) + \sqrt{(N_1 + N_2)^2 \cdot (N_3^2 - 4 \cdot N_4^2 \cdot N_5^2) - 4 \cdot N_2 \cdot N_3 \cdot N_4 \cdot N_5 \cdot (N_1 + N_2)}} - R = 0.00000$$

4RST4AB4R10



$N_1 = 1.07253$ $N_5 = 0.36806$
$N_2 = 1.85708$ $N_6 = 1.75313$
$N_3 = 1.34610$ $N_7 = 0.71675$
$N_4 = 0.93197$ $R = 3.93862$

Unit. $AB := 1$ **Given.** $N_1 := 1.07253$ $N_2 := 1.85708$ $N_3 := 1.34610$ $N_4 := .93197$ $N_5 := .36806$ $N_6 := 1.75313$ $N_7 := .71675$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $F := \frac{N_u}{N_6}$ $G := \frac{N_u}{N_7}$

$T := 19$ $U := 18$ $V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$j := \frac{T}{N_1}$ $k := \frac{U}{N_2}$ $l := \frac{V}{N_3}$ $m := \frac{W}{N_4}$ $n := \frac{X}{N_5}$ $o := \frac{Y}{N_6}$ $p := \frac{Z}{N_7}$

Descriptions.

$AD := \frac{N_2}{N_1 + N_2}$ $BP := N_5 \cdot \frac{N_4}{N_3}$ $EJ := \sqrt{AD^2 + AB^2}$

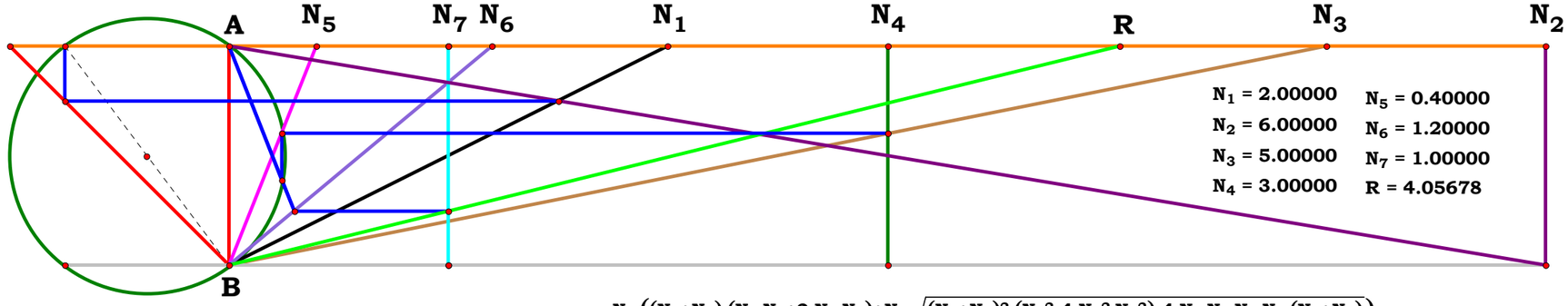
$EF := \frac{EJ - AB}{2}$ $GM := \frac{EJ}{2}$

$HM := \frac{AD}{2} + BP$ $GH := \sqrt{GM^2 - HM^2}$

$FH := GM + GH - EF$ $BQ := \frac{BP}{FH}$

$BU := \frac{N_6 \cdot BQ}{N_6 + BQ}$ $OU := \frac{BU}{N_6}$

$R := \frac{N_7}{OU}$ $R = 3.938664$



$N_1 = 2.00000$ $N_5 = 0.40000$
$N_2 = 6.00000$ $N_6 = 1.20000$
$N_3 = 5.00000$ $N_7 = 1.00000$
$N_4 = 3.00000$ $R = 4.05678$

$\frac{N_7 \cdot ((N_1+N_2) \cdot (N_3 \cdot N_6 + 2 \cdot N_4 \cdot N_5) + N_6 \cdot \sqrt{(N_1+N_2)^2 \cdot (N_3^2 - 4 \cdot N_4^2 \cdot N_5^2) - 4 \cdot N_2 \cdot N_3 \cdot N_4 \cdot N_5 \cdot (N_1+N_2)})}{2 \cdot N_4 \cdot N_5 \cdot (N_1+N_2)} - R = 0.00000$

Definitions.

$$R - \frac{N_7 \cdot \left[N_6 \cdot \sqrt{\left(N_1+N_2\right)^2 \cdot \left(N_3^2 - 4 \cdot N_4^2 \cdot N_5^2\right) - 4 \cdot N_2 \cdot N_3 \cdot N_4 \cdot N_5 \cdot \left(N_1+N_2\right)} + \left(N_3 \cdot N_6 + 2 \cdot N_4 \cdot N_5\right) \cdot \left(N_1+N_2\right) \right]}{2 \cdot N_4 \cdot N_5 \cdot \left(N_1+N_2\right)} = 0$$

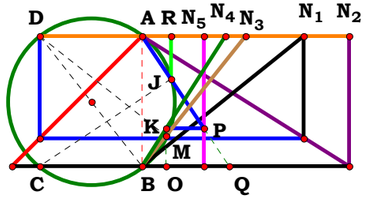
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$ $N_6 - \frac{N_u}{F} = 0$ $N_7 - \frac{N_u}{G} = 0$

$$R - \frac{N_u \cdot \left[\sqrt{\left[D^2 \cdot E^2 \cdot (A+B) - 4 \cdot C \cdot N_u \cdot \left[C \cdot N_u \cdot (A+B) + A \cdot D \cdot E \right] \right] \cdot (A+B)} + (2 \cdot C \cdot F + D \cdot E) \cdot (A+B) \right]}{2 \cdot C \cdot F \cdot G \cdot (A+B)} = 0$$

$N_1 - \frac{T}{j} = 0$ $N_2 - \frac{U}{k} = 0$ $N_3 - \frac{V}{l} = 0$ $N_4 - \frac{W}{m} = 0$ $N_5 - \frac{X}{n} = 0$ $N_6 - \frac{Y}{o} = 0$ $N_7 - \frac{Z}{p} = 0$

$$R - \frac{N_u \cdot \left[N_u \cdot \sqrt{\left[(T \cdot k + U \cdot j) \cdot \left[V \cdot m \cdot n \cdot (T \cdot V \cdot k \cdot m \cdot n - 4 \cdot U \cdot W \cdot X \cdot j \cdot l + U \cdot V \cdot j \cdot m \cdot n) - 4 \cdot W^2 \cdot X^2 \cdot l^2 \cdot (T \cdot k + U \cdot j) \right] \right]} + (T \cdot k + U \cdot j) \cdot \left(2 \cdot F \cdot W \cdot X \cdot l + N_u \cdot V \cdot m \cdot n \right) \right]}{2 \cdot F \cdot G \cdot W \cdot X \cdot l \cdot (T \cdot k + U \cdot j)} = 0$$

4RST4AB5R0



$N_1 = 1.23719$
$N_2 = 1.58588$
$N_3 = 0.79637$
$N_4 = 0.63903$
$N_5 = 0.47460$
$R = 0.22134$

Unit. $AB := 1$ **Given.** $N_1 := 1.23719$ $N_2 := 1.58588$ $N_3 := .79637$ $N_4 := .63903$ $N_5 := .47460$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$

$V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$l := \frac{V}{N_1}$ $m := \frac{W}{N_2}$ $n := \frac{X}{N_3}$ $o := \frac{Y}{N_4}$ $p := \frac{Z}{N_5}$

Descriptions.

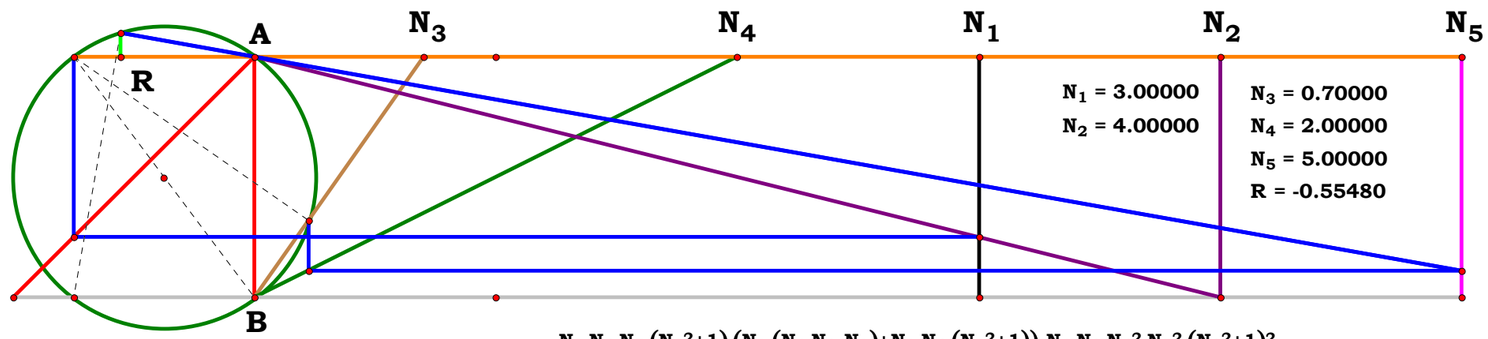
$AD := \frac{N_1}{N_2}$ $BN_3 := \sqrt{AB^2 + N_3^2}$

$MN_3 := \frac{N_3 \cdot (N_3 + AD)}{BN_3}$ $BM := BN_3 - MN_3$

$BO := \frac{N_3 \cdot BM}{BN_3}$ $KO := \frac{BO}{N_4}$ $BQ := \frac{N_5}{AB - KO}$

$AQ := \sqrt{AB^2 + BQ^2}$ $JQ := \frac{BQ \cdot (BQ + AD)}{AQ}$

$AJ := AQ - JQ$ $R := \frac{BQ \cdot AJ}{AQ}$ $R = 0.221344$



$$\frac{N_2 \cdot N_4 \cdot N_5 \cdot (N_3^2+1) \cdot (N_3 \cdot (N_1 \cdot N_3 - N_2) + N_2 \cdot N_4 \cdot (N_3^2+1)) - N_1 \cdot N_2 \cdot N_4^2 \cdot N_5^2 \cdot (N_3^2+1)^2}{(N_2 \cdot N_4 \cdot N_5 \cdot (N_3^2+1))^2 + ((N_1 \cdot N_3^2 - N_2 \cdot N_3) + N_2 \cdot N_4 + N_2 \cdot N_3^2 \cdot N_4)^2} - R = 0.00000$$

Definitions.

$$R - \frac{N_2 \cdot N_4 \cdot N_5 \cdot \left(N_3^2 + 1\right) \cdot \left[N_3 \cdot \left(N_1 \cdot N_3 - N_2\right) + N_2 \cdot N_4 \cdot \left(N_3^2 + 1\right)\right] - N_1 \cdot N_2 \cdot N_4^2 \cdot N_5^2 \cdot \left(N_3^2 + 1\right)^2}{N_2^2 \cdot N_4^2 \cdot N_5^2 \cdot \left(N_3^2 + 1\right)^2 + \left(N_1 \cdot N_3^2 - N_2 \cdot N_3 + N_2 \cdot N_4 + N_2 \cdot N_3^2 \cdot N_4\right)^2} = 0$$

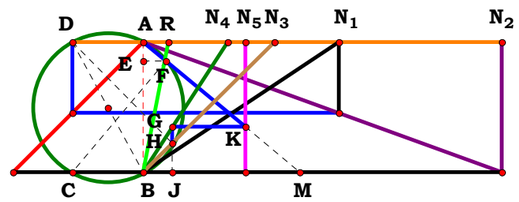
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$

$$R - \frac{N_u \cdot \left(C^2 + N_u^2\right) \cdot A \cdot \left[A \cdot C \cdot E \cdot (C - D) - B \cdot N_u \cdot \left(C^2 + N_u^2\right) + E \cdot N_u \cdot \left(B \cdot D + A \cdot N_u\right)\right]}{E^2 \cdot \left[A \cdot C \cdot (C - D) + N_u \cdot \left(B \cdot D + A \cdot N_u\right)\right]^2 + A^2 \cdot N_u^2 \cdot \left(C^2 + N_u^2\right)^2} = 0$$

$N_1 - \frac{V}{l} = 0$ $N_2 - \frac{W}{m} = 0$ $N_3 - \frac{X}{n} = 0$ $N_4 - \frac{Y}{o} = 0$ $N_5 - \frac{Z}{p} = 0$

$$R - \frac{W \cdot Y \cdot Z \cdot l \cdot \left(X^2 + n^2\right) \cdot \left[Y \cdot \left(X^2 + n^2\right) \cdot (W \cdot l \cdot p - V \cdot Z \cdot m) + X \cdot o \cdot p \cdot (V \cdot X \cdot m - W \cdot l \cdot n)\right]}{Y^2 \cdot W^2 \cdot l^2 \cdot \left(X^2 + n^2\right)^2 \cdot \left(Z^2 + p^2\right) + 2 \cdot Y \cdot W \cdot X \cdot l \cdot o \cdot p^2 \cdot \left(X^2 + n^2\right) \cdot (V \cdot X \cdot m - W \cdot l \cdot n) + X^2 \cdot o^2 \cdot p^2 \cdot (V \cdot X \cdot m - W \cdot l \cdot n)^2} = 0$$

4RST4AB5R2



$N_1 = 1.49870$
$N_2 = 2.74817$
$N_3 = 1.00946$
$N_4 = 0.64872$
$N_5 = 0.78455$
$R = 0.19783$

Unit. $AB := 1$ Given. $N_1 := 1.49870$ $N_2 := 2.74817$ $N_3 := 1.00946$ $N_4 := .64872$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $N_5 := .78455$

$V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $l := \frac{V}{N_1}$ $m := \frac{W}{N_2}$ $n := \frac{X}{N_3}$ $o := \frac{Y}{N_4}$ $p := \frac{Z}{N_5}$

Descriptions.

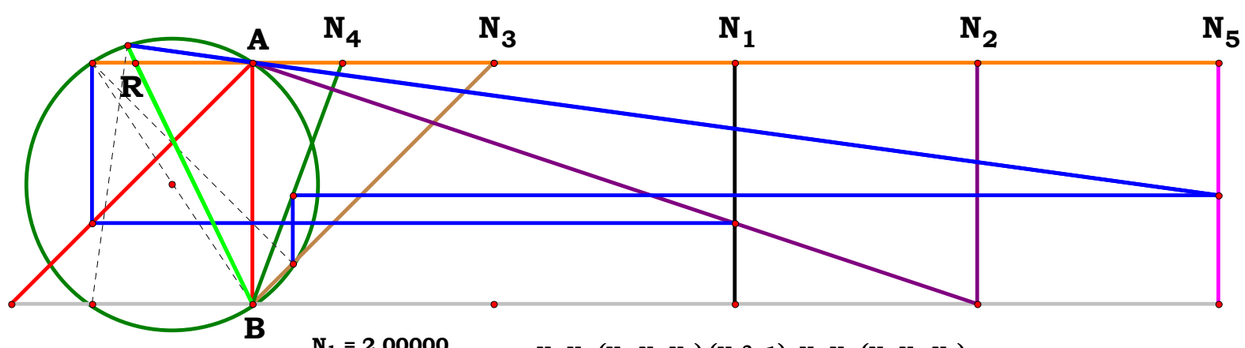
$$AD := \frac{N_1}{N_2} \qquad BN_3 := \sqrt{AB^2 + N_3^2} \qquad HN_3 := \frac{N_3 \cdot (N_3 + AD)}{BN_3}$$

$$BH := BN_3 - HN_3 \qquad BJ := \frac{N_3 \cdot BH}{BN_3} \qquad GJ := \frac{BJ}{N_4}$$

$$BM := \frac{N_5}{AB - GJ} \qquad AM := \sqrt{AB^2 + BM^2}$$

$$FM := \frac{BM \cdot (BM + AD)}{AM} \qquad AF := AM - FM \qquad EF := \frac{BM \cdot AF}{AM}$$

$$AE := \frac{AF}{AM} \qquad R := \frac{EF}{AB - AE} \qquad R = 0.197829$$



$N_1 = 2.00000$
$N_2 = 3.00000$
$N_3 = 1.00000$
$N_4 = 0.37128$
$N_5 = 4.00000$
$R = -0.48440$

$$\frac{N_2 \cdot N_4 \cdot (N_2 - N_1 \cdot N_5) \cdot (N_3^2 + 1) + N_2 \cdot N_3 \cdot (N_1 \cdot N_3 - N_2)}{N_2 \cdot N_4 \cdot (N_1 + N_2 \cdot N_5) \cdot (N_3^2 + 1) + N_1 \cdot N_3 \cdot (N_1 \cdot N_3 - N_2)} - R = 0.00000$$

Definitions.

$$R - \frac{N_2 \cdot N_4 \cdot (N_2 - N_1 \cdot N_5) \cdot (N_3^2 + 1) + N_2 \cdot N_3 \cdot (N_1 \cdot N_3 - N_2)}{N_2 \cdot N_4 \cdot (N_1 + N_2 \cdot N_5) \cdot (N_3^2 + 1) + N_1 \cdot N_3 \cdot (N_1 \cdot N_3 - N_2)} = 0$$

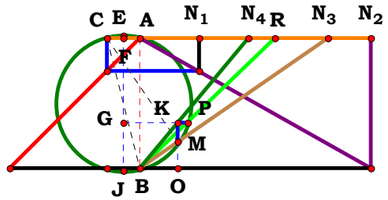
$$N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0 \quad N_4 - \frac{N_u}{D} = 0 \quad N_5 - \frac{N_u}{E} = 0$$

$$R - \frac{A \cdot [E \cdot [A \cdot C \cdot (C - D) + N_u \cdot (B \cdot D + A \cdot N_u)] - [B \cdot N_u \cdot (C^2 + N_u^2)]]}{E \cdot B \cdot [A \cdot C \cdot (C - D) + N_u \cdot (B \cdot D + A \cdot N_u)] + A^2 \cdot N_u \cdot (C^2 + N_u^2)} = 0$$

$$N_1 - \frac{V}{l} = 0 \quad N_2 - \frac{W}{m} = 0 \quad N_3 - \frac{X}{n} = 0 \quad N_4 - \frac{Y}{o} = 0 \quad N_5 - \frac{Z}{p} = 0$$

$$R - \frac{W \cdot Y \cdot l \cdot (W \cdot l \cdot p - V \cdot Z \cdot m) \cdot (X^2 + n^2) + W \cdot X \cdot l \cdot o \cdot p \cdot (V \cdot X \cdot m - W \cdot l \cdot n)}{Y \cdot W \cdot l \cdot (X^2 + n^2) \cdot (W \cdot Z \cdot l + V \cdot m \cdot p) + V \cdot X \cdot m \cdot o \cdot p \cdot (V \cdot X \cdot m - W \cdot l \cdot n)} = 0$$

4RST4AB5R4



$N_1 = 0.45264$
$N_2 = 1.76991$
$N_3 = 1.44532$
$N_4 = 0.83275$
$R = 1.03672$

Unit. $AB := 1$ Given. $N_1 := .45264$ $N_2 := 1.76991$ $N_3 := 1.44532$ $N_4 := .83275$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

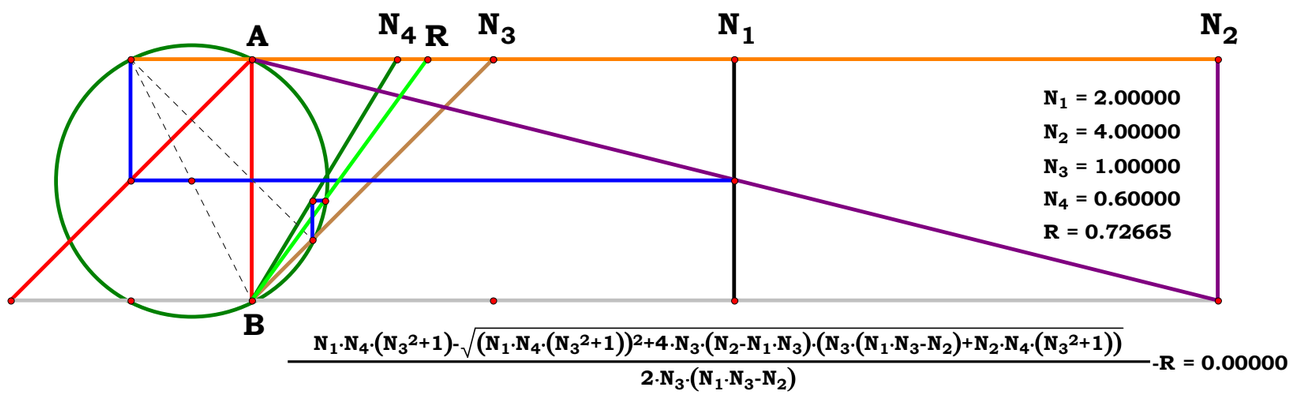
$AD := \frac{N_1}{N_2}$ $EJ := \sqrt{AB^2 + AD^2}$ $EF := \frac{EJ - AB}{2}$

$BN_3 := \sqrt{AB^2 + N_3^2}$ $MN_3 := \frac{N_3 \cdot (N_3 + AD)}{BN_3}$

$BM := BN_3 - MN_3$ $BO := \frac{N_3 \cdot BM}{BN_3}$ $KO := \frac{BO}{N_4}$

$GJ := KO + EF$ $EG := EJ - GJ$ $GP := \sqrt{EG \cdot GJ}$

$R := \frac{GP - \frac{AD}{2}}{KO}$ $R = 1.03672$



$$\frac{N_1 \cdot N_4 \cdot (N_3^2+1) - \sqrt{(N_1 \cdot N_4 \cdot (N_3^2+1))^2 + 4 \cdot N_3 \cdot (N_2 - N_1 \cdot N_3) \cdot (N_3 \cdot (N_1 \cdot N_3 - N_2) + N_2 \cdot N_4 \cdot (N_3^2+1))}}{2 \cdot N_3 \cdot (N_1 \cdot N_3 - N_2)} - R = 0.00000$$

Definitions.

$$R - \frac{\sqrt{N_4^2} \cdot AD \cdot N_4 \cdot (N_3^2 + 1) - N_4 \cdot \sqrt{N_3 \cdot N_4 \cdot \left[AD \cdot N_3 \cdot \left(2 \cdot AD \cdot N_4 - 4 \cdot N_3^2 + AD \cdot N_3^2 \cdot N_4 - 4\right) + 4 \cdot N_3^2 + 4\right] + 4 \cdot N_3^2 \cdot \left[AD \cdot N_3 \cdot (2 - AD \cdot N_3) - 1\right] + AD^2 \cdot N_4^2}}{2 \cdot \sqrt{N_4^2} \cdot N_3 \cdot (AD \cdot N_3 - 1)} = 0$$

$$R - \frac{N_1 \cdot N_4 \cdot (N_3^2 + 1) - \sqrt{N_1^2 \cdot N_4^2 \cdot (N_3^2 + 1)^2 + 4 \cdot N_3 \cdot (N_2 - N_1 \cdot N_3) \cdot \left[N_3 \cdot (N_1 \cdot N_3 - N_2) + N_2 \cdot N_4 \cdot (N_3^2 + 1)\right]}}{2 \cdot N_3 \cdot (N_1 \cdot N_3 - N_2)} = 0$$

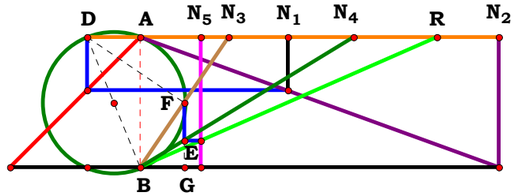
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{\sqrt{4 \cdot D \cdot (A \cdot C - B \cdot N_u) \cdot \left[A \cdot C \cdot (C - D) + N_u \cdot (B \cdot D + A \cdot N_u)\right] + B^2 \cdot (C^2 + N_u^2)^2} - B \cdot (C^2 + N_u^2)}{2 \cdot D \cdot (A \cdot C - B \cdot N_u)} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{W \cdot Z \cdot n \cdot (Y^2 + o^2) - \sqrt{Z^2 \cdot W^2 \cdot n^2 \cdot (Y^2 + o^2)^2 + -4 \cdot Z \cdot X \cdot Y \cdot m \cdot p \cdot (Y^2 + o^2) \cdot (W \cdot Y \cdot n - X \cdot m \cdot o) - 4 \cdot Y^2 \cdot p^2 \cdot (W \cdot Y \cdot n - X \cdot m \cdot o)^2}}{2 \cdot Y \cdot p \cdot (W \cdot Y \cdot n - X \cdot m \cdot o)} = 0$$

4RST4AB5R7



$N_1 = 1.13064$
$N_2 = 2.74817$
$N_3 = 0.68014$
$N_4 = 1.63667$
$N_5 = 0.46492$
$R = 2.27207$

Unit. $AB := 1$ Given. $N_1 := 1.13064$ $N_2 := 2.74817$ $N_3 := .68014$ $N_4 := 1.63667$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $N_5 := .46492$

$V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $l := \frac{V}{N_1}$ $m := \frac{W}{N_2}$ $n := \frac{X}{N_3}$ $o := \frac{Y}{N_4}$ $p := \frac{Z}{N_5}$

Descriptions.

$AD := \frac{N_1}{N_2}$ $BN_3 := \sqrt{AB^2 + N_3^2}$

$FN_3 := \frac{N_3 \cdot (N_3 + AD)}{BN_3}$ $BF := BN_3 - FN_3$

$BG := \frac{N_3 \cdot BF}{BN_3}$ $EG := \frac{BG}{N_4}$

$R := \frac{N_5}{EG}$ $R = 2.272076$

Definitions.

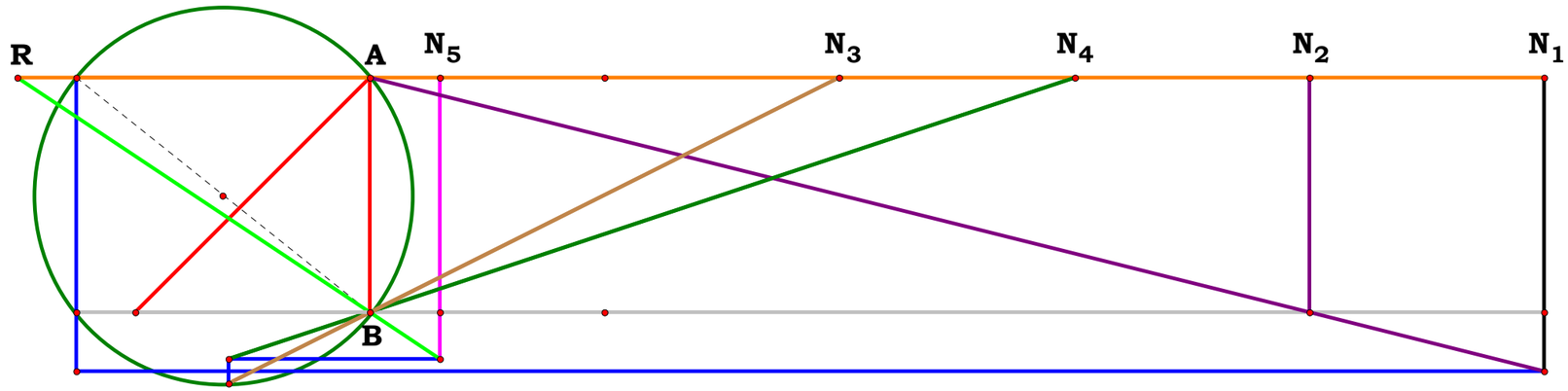
$$R - \frac{N_2 \cdot N_4 \cdot N_5 \cdot (N_3^2 + 1)}{N_3 \cdot (N_2 - N_1 \cdot N_3)} = 0$$

$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$

$$R - \frac{A \cdot N_u \cdot (C^2 + N_u^2)}{E \cdot [D \cdot (A \cdot C - B \cdot N_u)]} = 0$$

$N_1 - \frac{V}{l} = 0$ $N_2 - \frac{W}{m} = 0$ $N_3 - \frac{X}{n} = 0$ $N_4 - \frac{Y}{o} = 0$ $N_5 - \frac{Z}{p} = 0$

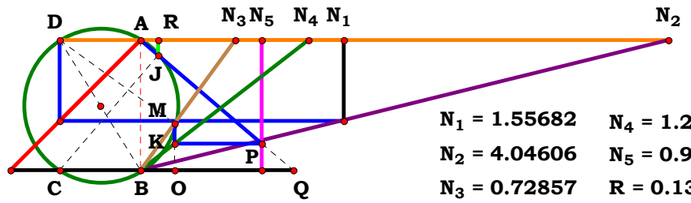
$$R - \frac{W \cdot Y \cdot Z \cdot l \cdot (N_3^2 + 1)}{o \cdot p \cdot N_3 \cdot (W \cdot l - N_3 \cdot V \cdot m)} = 0$$



$N_1 = 5.00000$
$N_2 = 4.00000$
$N_3 = 2.00000$
$N_4 = 3.00000$
$N_5 = 0.30000$
$R = -1.50000$

$\frac{N_2 \cdot N_4 \cdot N_5 \cdot (N_3^2+1)}{N_3 \cdot (N_2 - N_1 \cdot N_3)} - R = 0.00000$

4RST4AB6R0



$N_1 = 1.55682$ $N_4 = 1.28798$
$N_2 = 4.04606$ $N_5 = 0.92984$
$N_3 = 0.72857$ $R = 0.13904$

Unit. $AB := 1$ Given. $N_1 := 1.55682$ $N_2 := 4.04606$ $N_3 := .72857$ $N_4 := 1.28798$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $N_5 := .92984$

$V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $l := \frac{V}{N_1}$ $m := \frac{W}{N_2}$ $n := \frac{X}{N_3}$ $o := \frac{Y}{N_4}$ $p := \frac{Z}{N_5}$

Descriptions.

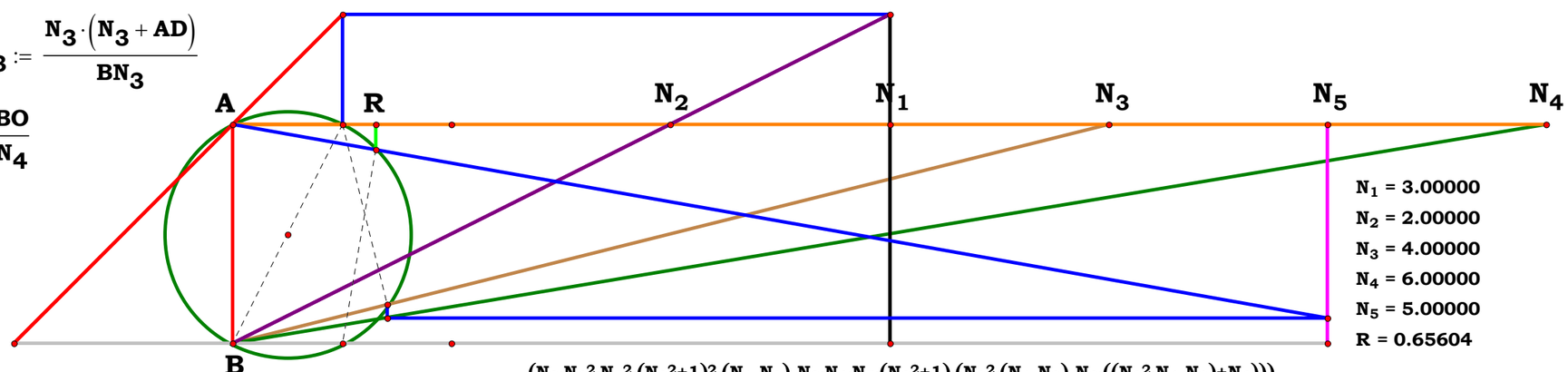
$$AD := \frac{N_2 - N_1}{N_2} \qquad BN_3 := \sqrt{AB^2 + N_3^2} \qquad MN_3 := \frac{N_3 \cdot (N_3 + AD)}{BN_3}$$

$$BM := BN_3 - MN_3 \qquad BO := \frac{N_3 \cdot BM}{BN_3} \qquad KO := \frac{BO}{N_4}$$

$$BQ := \frac{N_5}{AB - KO} \qquad AQ := \sqrt{AB^2 + BQ^2}$$

$$JQ := \frac{BQ \cdot (BQ + AD)}{AQ} \qquad AJ := AQ - JQ$$

$$R := \frac{BQ \cdot AJ}{AQ} \qquad R = 0.139036$$



$N_1 = 3.00000$
$N_2 = 2.00000$
$N_3 = 4.00000$
$N_4 = 6.00000$
$N_5 = 5.00000$
$R = 0.65604$

$$\frac{(N_2 \cdot N_4^2 \cdot N_5^2 \cdot (N_3^2+1)^2 \cdot (N_1-N_2) - N_2 \cdot N_4 \cdot N_5 \cdot (N_3^2+1) \cdot (N_3^2 \cdot (N_1-N_2) - N_2 \cdot ((N_3^2 \cdot N_4 - N_3) + N_4)))}{(((N_2 \cdot N_4 \cdot (N_3^2+1))^2 \cdot (N_5^2+1) - 2 \cdot N_2 \cdot N_3 \cdot N_4 \cdot (N_3^2+1) \cdot ((N_2 + N_1 \cdot N_3) - N_2 \cdot N_3)) + N_3^2 \cdot ((N_2 + N_1 \cdot N_3) - N_2 \cdot N_3)^2)} - R = 0.00000$$

Definitions.

$$R - \frac{N_2 \cdot N_4^2 \cdot N_5^2 \cdot \left(N_3^2 + 1\right)^2 \cdot \left(N_1 - N_2\right) - N_2 \cdot N_4 \cdot N_5 \cdot \left(N_3^2 + 1\right) \cdot \left[N_3^2 \cdot \left(N_1 - N_2\right) - N_2 \cdot \left(N_3^2 \cdot N_4 - N_3 + N_4\right)\right]}{N_2^2 \cdot N_4^2 \cdot \left(N_3^2 + 1\right)^2 \cdot \left(N_5^2 + 1\right) - 2 \cdot N_2 \cdot N_3 \cdot N_4 \cdot \left(N_3^2 + 1\right) \cdot \left(N_2 + N_1 \cdot N_3 - N_2 \cdot N_3\right) + N_3^2 \cdot \left(N_2 + N_1 \cdot N_3 - N_2 \cdot N_3\right)^2} = 0$$

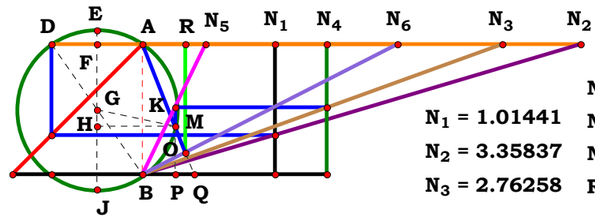
$$N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0 \quad N_4 - \frac{N_u}{D} = 0 \quad N_5 - \frac{N_u}{E} = 0$$

$$R - \frac{A \cdot N_u \cdot \left(C^2 + N_u^2\right) \cdot \left[A \cdot C^2 \cdot E - N_u^3 \cdot (A - B) - C^2 \cdot N_u \cdot (A - B) + A \cdot E \cdot N_u \cdot \left(D + N_u\right) - D \cdot E \cdot \left(A \cdot C + B \cdot N_u\right)\right]}{E^2 \cdot \left[A \cdot \left(C^2 + N_u^2\right) - A \cdot C \cdot D + D \cdot N_u \cdot (A - B)\right]^2 + A^2 \cdot N_u^2 \cdot \left(C^2 + N_u^2\right)^2} = 0$$

$$N_1 - \frac{V}{l} = 0 \quad N_2 - \frac{W}{m} = 0 \quad N_3 - \frac{X}{n} = 0 \quad N_4 - \frac{Y}{o} = 0 \quad N_5 - \frac{Z}{p} = 0$$

$$R - \frac{W \cdot Y \cdot Z \cdot l \cdot \left(X^2 + n^2\right) \cdot \left[Y \cdot \left(X^2 + n^2\right) \cdot (V \cdot Z \cdot m - W \cdot Z \cdot l + W \cdot l \cdot p) - X \cdot o \cdot p \cdot (V \cdot X \cdot m - W \cdot X \cdot l + W \cdot l \cdot n)\right]}{Y^2 \cdot W^2 \cdot l^2 \cdot \left(X^2 + n^2\right)^2 \cdot \left(Z^2 + p^2\right) - 2 \cdot Y \cdot W \cdot X \cdot l \cdot o \cdot p^2 \cdot \left(X^2 + n^2\right) \cdot (V \cdot X \cdot m - W \cdot X \cdot l + W \cdot l \cdot n) + X^2 \cdot o^2 \cdot p^2 \cdot (V \cdot X \cdot m - W \cdot X \cdot l + W \cdot l \cdot n)^2} = 0$$

4RST4AB6R1



$N_1 = 1.01441$ $N_4 = 1.41390$
$N_2 = 3.35837$ $N_5 = 0.48429$
$N_3 = 2.76258$ $N_6 = 1.95653$
$R = 0.32983$

Unit. $AB := 1$ **Given.** $N_1 := 1.01441$ $N_2 := 3.35837$ $N_3 := 2.76258$ $N_4 := 1.41390$ $N_5 := .48429$ $N_6 := 1.95653$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $F := \frac{N_u}{N_6}$

$U := 18$ $V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$k := \frac{U}{N_1}$ $l := \frac{V}{N_2}$ $m := \frac{W}{N_3}$ $n := \frac{X}{N_4}$ $o := \frac{Y}{N_5}$ $p := \frac{Z}{N_6}$

Descriptions.

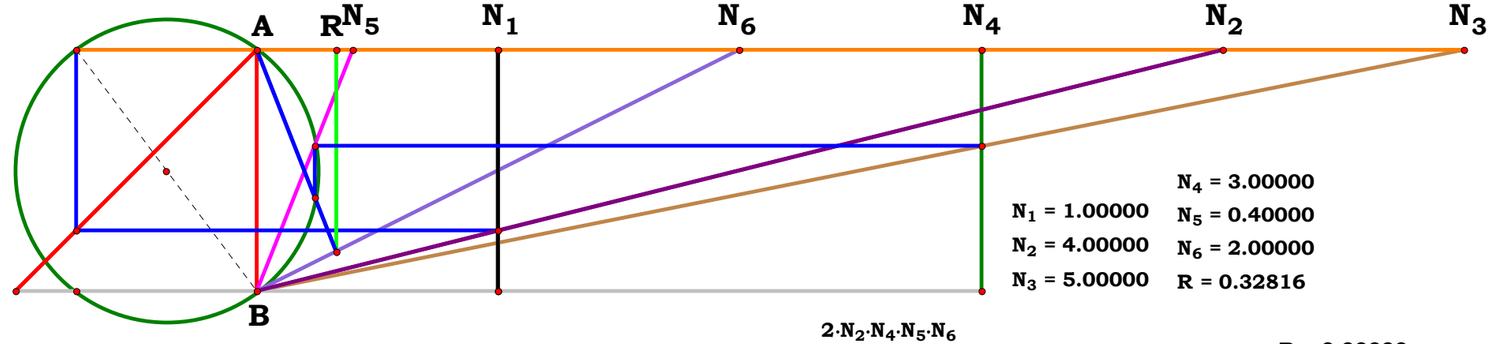
$AD := \frac{N_2 - N_1}{N_2}$ $EJ := \sqrt{AB^2 + AD^2}$ $AF := \frac{AD}{2}$

$BP := N_5 \cdot \frac{N_4}{N_3}$ $HM := AF + BP$

$GH := \sqrt{\left(\frac{EJ}{2}\right)^2 - HM^2}$ $FH := \frac{AB}{2} + GH$

$BQ := \frac{HM - AF}{FH}$ $R := \frac{BQ \cdot N_6}{BQ + N_6}$

$R = 0.329837$



$N_1 = 1.00000$ $N_4 = 3.00000$
$N_2 = 4.00000$ $N_5 = 0.40000$
$N_3 = 5.00000$ $N_6 = 2.00000$
$R = 0.32816$

$$\frac{2 \cdot N_2 \cdot N_4 \cdot N_5 \cdot N_6}{N_2 \cdot N_3 \cdot N_6 + 2 \cdot N_2 \cdot N_4 \cdot N_5 + N_6 \cdot \sqrt{(N_2 \cdot N_3)^2 - 4 \cdot N_2 \cdot N_4 \cdot N_5 \cdot ((N_2 \cdot N_3 - N_1 \cdot N_3) + N_2 \cdot N_4 \cdot N_5)}} - R = 0.00000$$

Definitions.

$$R - \frac{2 \cdot N_2 \cdot N_4 \cdot N_5 \cdot N_6}{N_6 \cdot \sqrt{N_2^2 \cdot N_3^2 - 4 \cdot N_2 \cdot N_4 \cdot N_5 \cdot (N_2 \cdot N_3 - N_1 \cdot N_3 + N_2 \cdot N_4 \cdot N_5)} + N_2 \cdot N_3 \cdot N_6 + 2 \cdot N_2 \cdot N_4 \cdot N_5} = 0$$

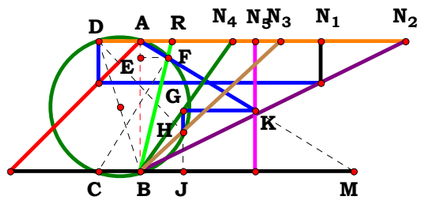
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$ $N_6 - \frac{N_u}{F} = 0$

$$R - \frac{2 \cdot C \cdot N_u \cdot \sqrt{A}}{\sqrt{A \cdot D^2 \cdot E^2 - 4 \cdot C \cdot N_u \cdot [A \cdot C \cdot N_u + D \cdot E \cdot (A - B)]} + \sqrt{A} \cdot (2 \cdot C \cdot F + D \cdot E)} = 0$$

$N_1 - \frac{U}{k} = 0$ $N_2 - \frac{V}{l} = 0$ $N_3 - \frac{W}{m} = 0$ $N_4 - \frac{X}{n} = 0$ $N_5 - \frac{Y}{o} = 0$ $N_6 - \frac{Z}{p} = 0$

$$R - \frac{2 \cdot V \cdot X \cdot Y \cdot Z \cdot m \cdot \sqrt{k}}{Z \cdot \sqrt{V^2 \cdot k \cdot (W^2 \cdot n^2 \cdot o^2 - 4 \cdot X^2 \cdot Y^2 \cdot m^2) + 4 \cdot W \cdot V \cdot X \cdot Y \cdot m \cdot n \cdot o \cdot (U \cdot l - V \cdot k)} + \sqrt{k} \cdot V \cdot (W \cdot Z \cdot n \cdot o + 2 \cdot X \cdot Y \cdot m \cdot p)} = 0$$

4RST4AB6R2



$N_1 = 1.38247$
$N_2 = 2.03142$
$N_3 = 1.07726$
$N_4 = 0.70683$
$N_5 = 0.88141$
$R = 0.24288$

Unit. $AB := 1$ Given. $N_1 := 1.38247$ $N_2 := 2.03142$ $N_3 := 1.07726$ $N_4 := .70683$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $N_5 := .88141$

$V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $l := \frac{V}{N_1}$ $m := \frac{W}{N_2}$ $n := \frac{X}{N_3}$ $o := \frac{Y}{N_4}$ $p := \frac{Z}{N_5}$

Descriptions.

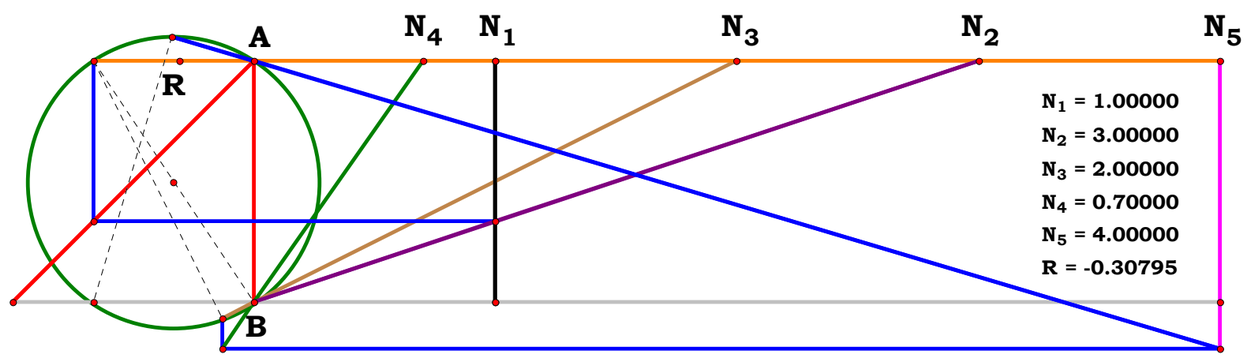
$$AD := \frac{N_2 - N_1}{N_2} \qquad BN_3 := \sqrt{AB^2 + N_3^2} \qquad HN_3 := \frac{N_3 \cdot (N_3 + AD)}{BN_3}$$

$$BH := BN_3 - HN_3 \qquad BJ := \frac{N_3 \cdot BH}{BN_3} \qquad GJ := \frac{BJ}{N_4}$$

$$BM := \frac{N_5}{AB - GJ} \qquad AM := \sqrt{AB^2 + BM^2}$$

$$FM := \frac{BM \cdot (BM + AD)}{AM} \qquad AF := AM - FM \qquad EF := \frac{BM \cdot AF}{AM}$$

$$AE := \frac{AF}{AM} \qquad R := \frac{EF}{AB - AE} \qquad R = 0.242875$$



$$\frac{(N_2 \cdot N_4 \cdot N_5 \cdot (N_3^2+1) \cdot (N_1-N_2) - N_2 \cdot (((N_1 \cdot N_3^2 - N_2 \cdot N_3^2) + N_2 \cdot N_3) - N_2 \cdot N_4 - N_2 \cdot N_3^2 \cdot N_4))}{(N_2^2 \cdot N_4 \cdot N_5 \cdot (N_3^2+1) + (N_1-N_2) \cdot (((N_1 \cdot N_3^2 - N_2 \cdot N_3^2) + N_2 \cdot N_3) - N_2 \cdot N_4 - N_2 \cdot N_3^2 \cdot N_4))} - R = 0.00000$$

Definitions.

$$R - \frac{N_2 \cdot N_4 \cdot N_5 \cdot (N_3^2 + 1) \cdot (N_1 - N_2) - N_2 \cdot (N_1 \cdot N_3^2 - N_2 \cdot N_3^2 + N_2 \cdot N_3 - N_2 \cdot N_4 - N_2 \cdot N_3^2 \cdot N_4)}{N_2^2 \cdot N_4 \cdot N_5 \cdot (N_3^2 + 1) + (N_1 - N_2) \cdot (N_1 \cdot N_3^2 - N_2 \cdot N_3^2 + N_2 \cdot N_3 - N_2 \cdot N_4 - N_2 \cdot N_3^2 \cdot N_4)} = 0$$

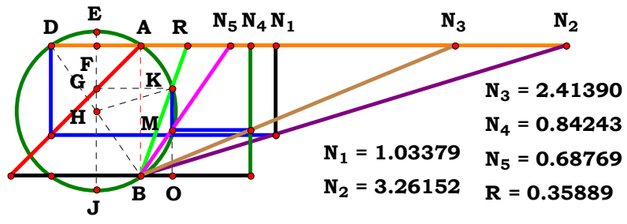
$$N_1 - \frac{N_u}{A} = 0 \qquad N_2 - \frac{N_u}{B} = 0 \qquad N_3 - \frac{N_u}{C} = 0 \qquad N_4 - \frac{N_u}{D} = 0 \qquad N_5 - \frac{N_u}{E} = 0$$

$$R - \frac{E \cdot A \cdot [A \cdot C \cdot (C - D) + N_u \cdot [D \cdot (A - B) + A \cdot N_u]] - A \cdot N_u \cdot (C^2 + N_u^2) \cdot (A - B)}{E \cdot (A - B) \cdot [A \cdot (C^2 - D \cdot C + N_u^2) + D \cdot N_u \cdot (A - B)] + A^2 \cdot N_u \cdot (C^2 + N_u^2)} = 0$$

$$N_1 - \frac{V}{l} = 0 \qquad N_2 - \frac{W}{m} = 0 \qquad N_3 - \frac{X}{n} = 0 \qquad N_4 - \frac{Y}{o} = 0 \qquad N_5 - \frac{Z}{p} = 0$$

$$R - \frac{W \cdot l \cdot [Y \cdot (X^2 + n^2) \cdot (V \cdot Z \cdot m - W \cdot Z \cdot l + W \cdot l \cdot p) - X \cdot o \cdot p \cdot (V \cdot X \cdot m - W \cdot X \cdot l + W \cdot l \cdot n)]}{Y \cdot W \cdot l \cdot (X^2 + n^2) \cdot (W \cdot Z \cdot l - V \cdot m \cdot p + W \cdot l \cdot p) + X \cdot o \cdot p \cdot (V \cdot m - W \cdot l) \cdot (V \cdot X \cdot m - W \cdot X \cdot l + W \cdot l \cdot n)} = 0$$

4RST4AB6R3



Unit. $AB := 1$ Given. $N_1 := 1.03379$ $N_2 := 3.26152$ $N_3 := 2.41390$ $N_4 := .84243$

$N_5 := .68769$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$

$V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $l := \frac{V}{N_1}$ $m := \frac{W}{N_2}$ $n := \frac{X}{N_3}$ $o := \frac{Y}{N_4}$ $p := \frac{Z}{N_5}$

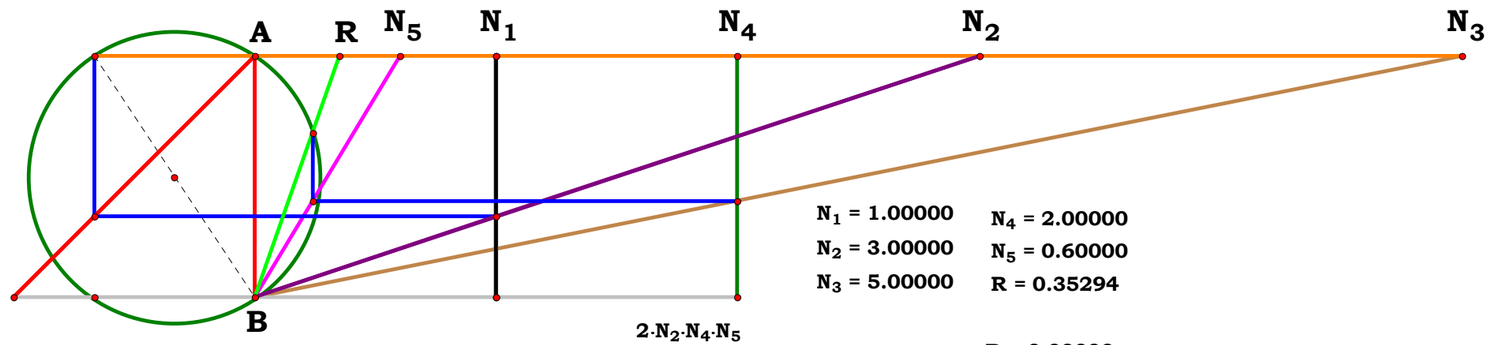
Descriptions.

$AD := \frac{N_2 - N_1}{N_2}$ $MO := \frac{N_4}{N_3}$ $BO := N_5 \cdot MO$

$GK := \frac{AD}{2} + BO$ $EJ := \sqrt{AB^2 + AD^2}$

$GH := \sqrt{\left(\frac{EJ}{2}\right)^2 - GK^2}$ $EF := \frac{EJ - AB}{2}$

$KO := \frac{EJ}{2} + GH - EF$ $R := \frac{BO}{KO}$ $R = 0.358879$



$$\frac{2 \cdot N_2 \cdot N_4 \cdot N_5}{N_2 \cdot N_3 + \sqrt{(N_2 \cdot N_3)^2 - 4 \cdot N_2 \cdot N_4 \cdot N_5 \cdot ((N_2 \cdot N_3 - N_1 \cdot N_3) + N_2 \cdot N_4 \cdot N_5)}} - R = 0.00000$$

Definitions.

$$R - \frac{2 \cdot N_2 \cdot N_4 \cdot N_5}{N_2 \cdot N_3 + \sqrt{N_2^2 \cdot N_3^2 - 4 \cdot N_2 \cdot N_4 \cdot N_5 \cdot (N_2 \cdot N_3 - N_1 \cdot N_3 + N_2 \cdot N_4 \cdot N_5)}} = 0$$

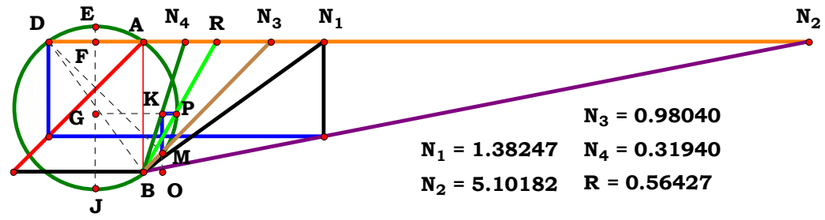
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$

$$R - \frac{2 \cdot C \cdot N_u \cdot \sqrt{A}}{\sqrt{A \cdot D^2 \cdot E^2 - 4 \cdot C \cdot N_u \cdot [A \cdot C \cdot N_u + D \cdot E \cdot (A - B)]} + \sqrt{A} \cdot D \cdot E} = 0$$

$N_1 - \frac{V}{l} = 0$ $N_2 - \frac{W}{m} = 0$ $N_3 - \frac{X}{n} = 0$ $N_4 - \frac{Y}{o} = 0$ $N_5 - \frac{Z}{p} = 0$

$$R - \frac{2 \cdot N_2 \cdot N_4 \cdot N_5}{N_2 \cdot N_3 + \sqrt{N_2^2 \cdot N_3^2 - 4 \cdot N_2 \cdot N_4 \cdot N_5 \cdot (N_2 \cdot N_3 - N_1 \cdot N_3 + N_2 \cdot N_4 \cdot N_5)}} = 0$$

4RST4AB6R4



$N_3 = 0.98040$
$N_1 = 1.38247$ $N_4 = 0.31940$
$N_2 = 5.10182$ $R = 0.56427$

Unit. $AB := 1$ **Given.** $N_1 := 1.38247$ $N_2 := 5.10182$ $N_3 := .98040$ $N_4 := .31940$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

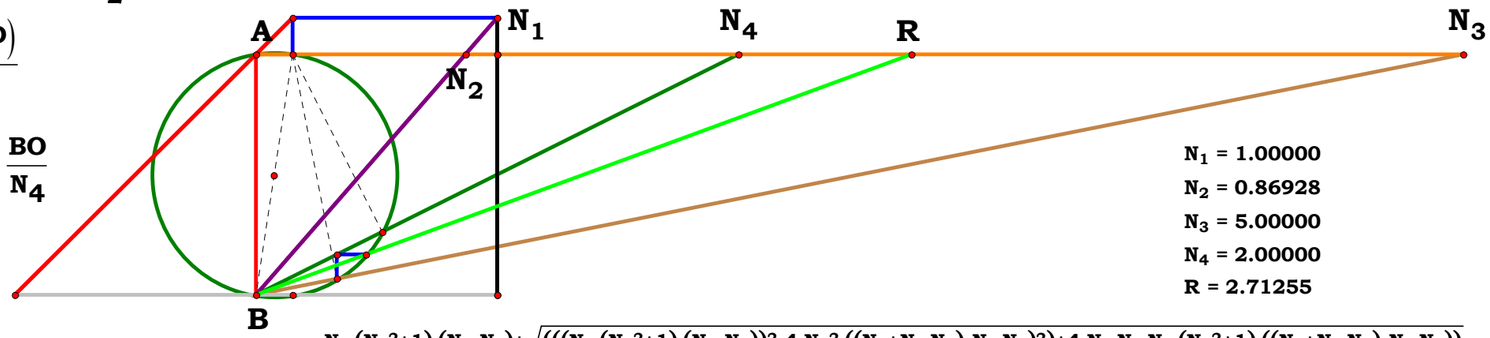
$AD := \frac{N_2 - N_1}{N_2}$ $EJ := \sqrt{AB^2 + AD^2}$ $EF := \frac{EJ - AB}{2}$

$BN_3 := \sqrt{AB^2 + N_3^2}$ $MN_3 := \frac{N_3 \cdot (N_3 + AD)}{BN_3}$

$BM := BN_3 - MN_3$ $BO := \frac{N_3 \cdot BM}{BN_3}$ $KO := \frac{BO}{N_4}$

$GJ := KO + EF$ $EG := EJ - GJ$

$GP := \sqrt{EG \cdot GJ}$ $R := \frac{GP - \frac{AD}{2}}{KO}$ $R = 0.564269$



$N_1 = 1.00000$
$N_2 = 0.86928$
$N_3 = 5.00000$
$N_4 = 2.00000$
$R = 2.71255$

$$\frac{N_4 \cdot (N_3^2+1) \cdot (N_1-N_2) + \sqrt{(((N_4 \cdot (N_3^2+1)) \cdot (N_1-N_2))^2 - 4 \cdot N_3^2 \cdot ((N_2+N_1 \cdot N_3) - N_2 \cdot N_3)^2) + 4 \cdot N_2 \cdot N_3 \cdot N_4 \cdot (N_3^2+1) \cdot ((N_2+N_1 \cdot N_3) - N_2 \cdot N_3))}}{2 \cdot N_3 \cdot ((N_2+N_1 \cdot N_3) - N_2 \cdot N_3)} - R = 0.00000$$

Definitions.

$$R - \frac{\sqrt{N_4^2} \cdot AD \cdot N_4 \cdot (N_3^2+1) - N_4 \cdot \sqrt{N_3 \cdot N_4 \cdot [AD \cdot N_3 \cdot (2 \cdot AD \cdot N_4 - 4 \cdot N_3^2 + AD \cdot N_3^2 \cdot N_4 - 4) + 4 \cdot N_3^2 + 4] + 4 \cdot N_3^2 \cdot [AD \cdot N_3 \cdot (2 - AD \cdot N_3) - 1] + AD^2 \cdot N_4^2}}{2 \cdot \sqrt{N_4^2} \cdot N_3 \cdot (AD \cdot N_3 - 1)} = 0$$

$$R - \frac{\sqrt{N_4^2 \cdot (N_3^2+1)^2 \cdot (N_1-N_2)^2 - 4 \cdot N_3^2 \cdot (N_2+N_1 \cdot N_3 - N_2 \cdot N_3)^2 + 4 \cdot N_2 \cdot N_3 \cdot N_4 \cdot (N_3^2+1) \cdot (N_2+N_1 \cdot N_3 - N_2 \cdot N_3)} + N_4 \cdot (N_3^2+1) \cdot (N_1-N_2)}{2 \cdot N_3 \cdot (N_2+N_1 \cdot N_3 - N_2 \cdot N_3)} = 0$$

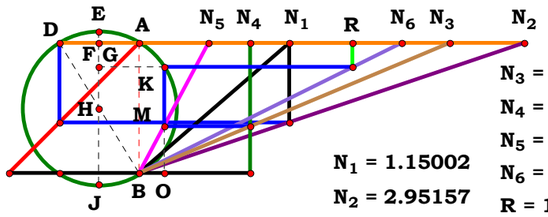
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{\sqrt{4 \cdot D \cdot [A \cdot C - N_u \cdot (A-B)] \cdot [A \cdot (C^2 - D \cdot C + N_u^2) + D \cdot N_u \cdot (A-B)] + (C^2 + N_u^2)^2 \cdot (A-B)^2} - C^2 \cdot (A-B) - N_u^2 \cdot (A-B)}{2 \cdot D \cdot (A \cdot C - A \cdot N_u + B \cdot N_u)} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{\sqrt{Z^2 \cdot (Y^2+o^2)^2 \cdot (W \cdot n - X \cdot m)^2 + 4 \cdot Z \cdot X \cdot Y \cdot m \cdot p \cdot (Y^2+o^2) \cdot (W \cdot Y \cdot n - X \cdot Y \cdot m + X \cdot m \cdot o) - 4 \cdot Y^2 \cdot p^2 \cdot (W \cdot Y \cdot n - X \cdot Y \cdot m + X \cdot m \cdot o)^2} + Z \cdot (Y^2+o^2) \cdot (W \cdot n - X \cdot m)}{2 \cdot Y \cdot p \cdot (W \cdot Y \cdot n - X \cdot Y \cdot m + X \cdot m \cdot o)} = 0$$

4RST4AB6R5



$N_3 = 2.38247$
$N_4 = 0.85448$
$N_5 = 0.53272$
$N_6 = 2.01464$
$R = 1.63438$

$N_1 = 1.15002$
$N_2 = 2.95157$

Unit. $AB := 1$ Given. $N_1 := 1.15002$ $N_2 := 2.95157$ $N_3 := 2.38247$

$N_4 := .85448$ $N_5 := .53272$ $N_6 := 2.01464$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $F := \frac{N_u}{N_6}$

$U := 18$ $V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $k := \frac{U}{N_1}$ $l := \frac{V}{N_2}$ $m := \frac{W}{N_3}$ $n := \frac{X}{N_4}$ $o := \frac{Y}{N_5}$ $p := \frac{Z}{N_6}$

Descriptions.

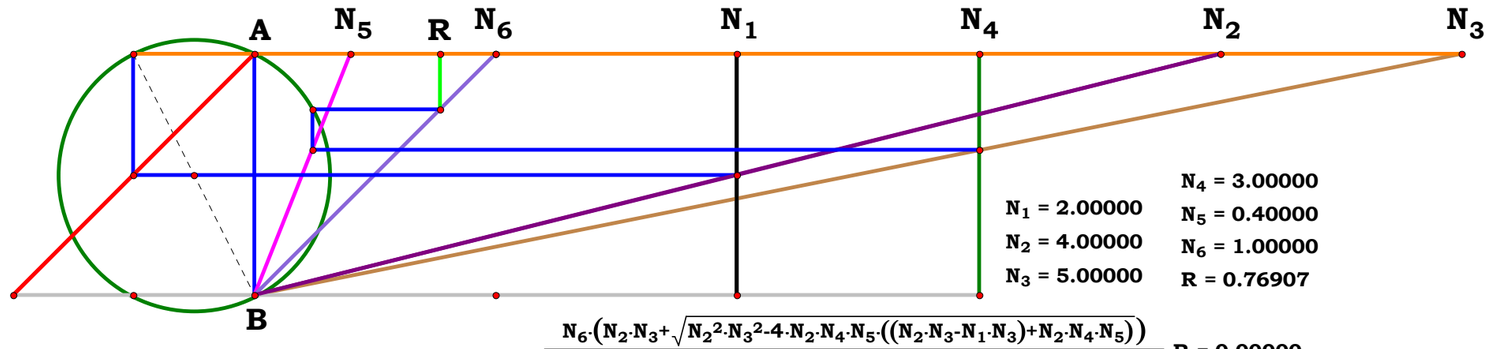
$AD := \frac{N_2 - N_1}{N_2}$ $MO := \frac{N_4}{N_3}$ $BO := N_5 \cdot MO$

$FK := BO + \frac{AD}{2}$ $EJ := \sqrt{AD^2 + AB^2}$

$HK := \frac{EJ}{2}$ $FH := \sqrt{HK^2 - FK^2}$

$EF := \frac{EJ - AB}{2}$ $KO := HK + FH - EF$

$R := N_6 \cdot KO$ $R = 1.634379$



$N_1 = 2.00000$
$N_2 = 4.00000$
$N_3 = 5.00000$

$N_4 = 3.00000$
$N_5 = 0.40000$
$N_6 = 1.00000$
$R = 0.76907$

$\frac{N_6 \cdot \left(N_2 \cdot N_3 + \sqrt{N_2^2 \cdot N_3^2 - 4 \cdot N_2 \cdot N_4 \cdot N_5 \cdot ((N_2 \cdot N_3 - N_1 \cdot N_3) + N_2 \cdot N_4 \cdot N_5)}\right)}{2 \cdot N_2 \cdot N_3} - R = 0.00000$

Definitions.

$$R - \frac{N_6 \cdot \left[N_2 \cdot N_3 + \sqrt{N_2^2 \cdot N_3^2 - 4 \cdot N_2 \cdot N_4 \cdot N_5 \cdot \left(N_2 \cdot N_3 - N_1 \cdot N_3 + N_2 \cdot N_4 \cdot N_5\right)}\right]}{2 \cdot N_2 \cdot N_3} = 0$$

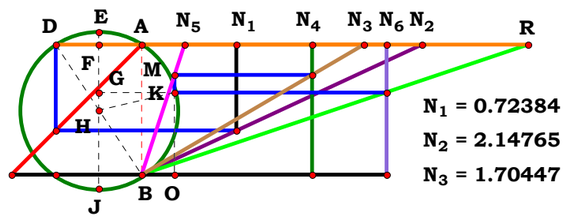
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$ $N_6 - \frac{N_u}{F} = 0$

$$R - \frac{N_u \cdot \left[\sqrt{A \cdot D^2 \cdot E^2 - 4 \cdot C \cdot N_u \cdot \left[A \cdot C \cdot N_u + D \cdot E \cdot (A - B)\right]} + \sqrt{A} \cdot D \cdot E\right]}{2 \cdot F \cdot \sqrt{A} \cdot D \cdot E} = 0$$

$N_1 - \frac{U}{k} = 0$ $N_2 - \frac{V}{l} = 0$ $N_3 - \frac{W}{m} = 0$ $N_4 - \frac{X}{n} = 0$ $N_5 - \frac{Y}{o} = 0$ $N_6 - \frac{Z}{p} = 0$

$$R - \frac{Z \cdot \left[\sqrt{4 \cdot Y \cdot V \cdot W \cdot X \cdot m \cdot n \cdot o \cdot (U \cdot l - V \cdot k) + V^2 \cdot k \cdot \left(W^2 \cdot n^2 \cdot o^2 - 4 \cdot X^2 \cdot Y^2 \cdot m^2\right)} + V \cdot W \cdot \sqrt{k} \cdot n \cdot o\right]}{2 \cdot V \cdot W \cdot p \cdot \sqrt{k} \cdot n \cdot o} = 0$$

4RST4AB6R6



$N_1 = 0.72384$
$N_2 = 2.14765$
$N_3 = 1.70447$
$N_4 = 1.30972$
$N_5 = 0.32932$
$N_6 = 1.87904$
$R = 2.95944$

Unit. $AB := 1$ Given. $N_1 := .72384$ $N_2 := 2.14765$ $N_3 := 1.70447$ $N_4 := 1.30972$ $N_5 := .32932$ $N_6 := 1.87904$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $F := \frac{N_u}{N_6}$

$U := 18$ $V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $k := \frac{U}{N_1}$ $l := \frac{V}{N_2}$ $m := \frac{W}{N_3}$ $n := \frac{X}{N_4}$ $o := \frac{Y}{N_5}$ $p := \frac{Z}{N_6}$

Descriptions.

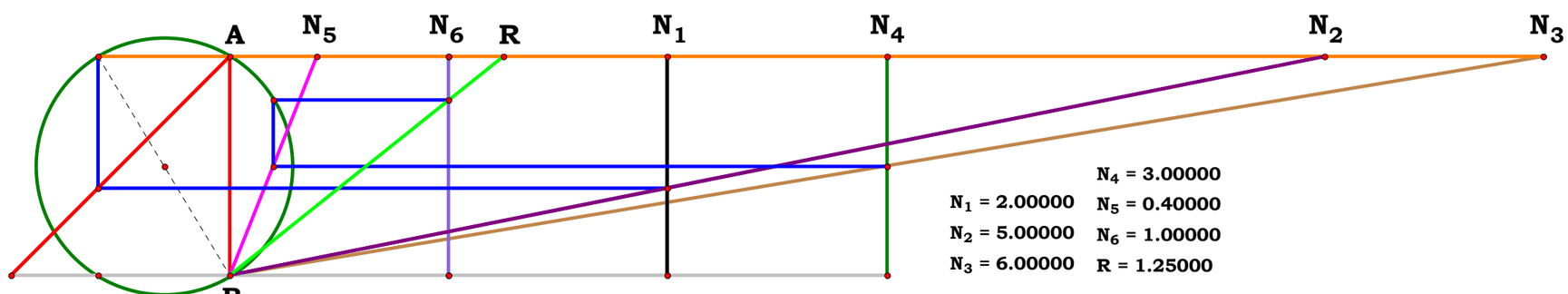
$AD := \frac{N_2 - N_1}{N_2}$ $MO := \frac{N_4}{N_3}$ $BO := N_5 \cdot MO$

$EJ := \sqrt{AD^2 + AB^2}$ $EF := \frac{EJ - AB}{2}$

$HK := \frac{EJ}{2}$ $GK := \frac{AD}{2} + BO$

$GH := \sqrt{HK^2 - GK^2}$ $KO := HK + GH - EF$

$R := \frac{N_6}{KO}$ $R = 2.959505$



$N_1 = 2.00000$
$N_2 = 5.00000$
$N_3 = 6.00000$
$N_4 = 3.00000$
$N_5 = 0.40000$
$N_6 = 1.00000$
$R = 1.25000$

$R - \frac{2 \cdot N_2 \cdot N_3 \cdot N_6}{N_2 \cdot N_3 + \sqrt{N_2^2 \cdot N_3^2 - 4 \cdot N_2 \cdot N_4 \cdot N_5 \cdot ((N_2 \cdot N_3 - N_1 \cdot N_3) + N_2 \cdot N_4 \cdot N_5)}} = 0.00000$

Definitions.

$$R - \frac{2 \cdot N_2 \cdot N_3 \cdot N_6}{N_2 \cdot N_3 + \sqrt{N_2^2 \cdot N_3^2 - 4 \cdot N_2 \cdot N_4 \cdot N_5 \cdot (N_2 \cdot N_3 - N_1 \cdot N_3 + N_2 \cdot N_4 \cdot N_5)}} = 0$$

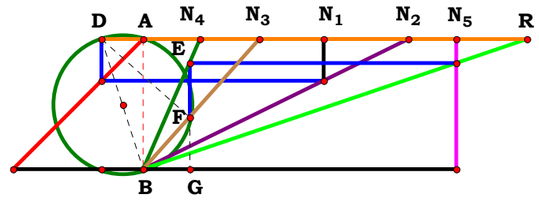
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$ $N_6 - \frac{N_u}{F} = 0$

$$R - \frac{2 \cdot N_u \cdot \sqrt{A} \cdot D \cdot E}{F \cdot \left[\sqrt{A \cdot D^2 \cdot E^2 - 4 \cdot C \cdot N_u \cdot [A \cdot C \cdot N_u + D \cdot E \cdot (A - B)]} + \sqrt{A} \cdot D \cdot E\right]} = 0$$

$N_1 - \frac{U}{k} = 0$ $N_2 - \frac{V}{l} = 0$ $N_3 - \frac{W}{m} = 0$ $N_4 - \frac{X}{n} = 0$ $N_5 - \frac{Y}{o} = 0$ $N_6 - \frac{Z}{p} = 0$

$$R - \frac{2 \cdot V \cdot W \cdot Z \cdot \sqrt{k} \cdot n \cdot o}{p \cdot \left[\sqrt{4 \cdot Y \cdot V \cdot W \cdot X \cdot m \cdot n \cdot o \cdot (U \cdot l - V \cdot k) + V^2 \cdot k \cdot \left(W^2 \cdot n^2 \cdot o^2 - 4 \cdot X^2 \cdot Y^2 \cdot m^2\right)} + V \cdot W \cdot \sqrt{k} \cdot n \cdot o\right]} = 0$$

4RST4AB6R7



$N_1 = 1.38247$
$N_2 = 2.03142$
$N_3 = 0.89323$
$N_4 = 0.43563$
$N_5 = 2.40207$
$R = 2.94715$

Unit. $AB := 1$ Given. $N_1 := 1.38247$ $N_2 := 2.03142$ $N_3 := .89323$

$N_4 := .43563$ $N_5 := 2.40207$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$

$V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $l := \frac{V}{N_1}$ $m := \frac{W}{N_2}$ $n := \frac{X}{N_3}$ $o := \frac{Y}{N_4}$ $p := \frac{Z}{N_5}$

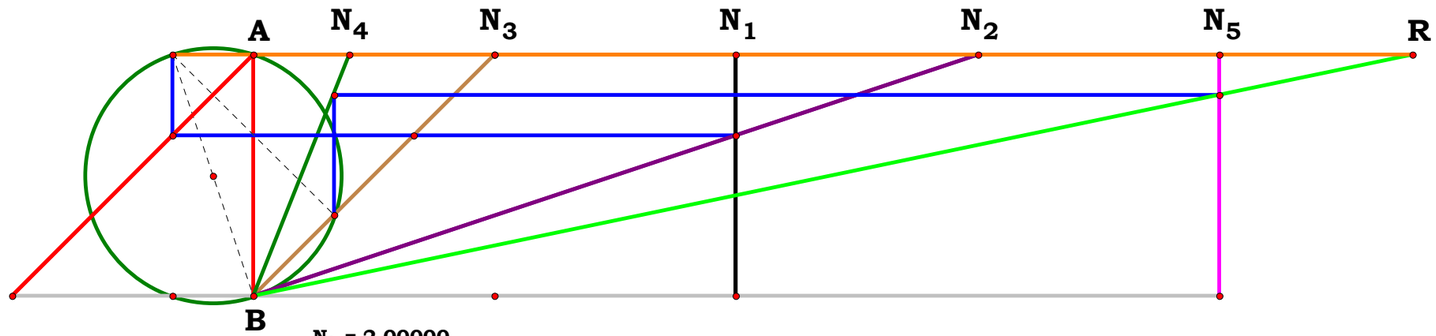
Descriptions.

$AD := \frac{N_2 - N_1}{N_2}$ $BN_3 := \sqrt{AB^2 + N_3{}^2}$

$FN_3 := \frac{N_3 \cdot (N_3 + AD)}{BN_3}$ $BF := BN_3 - FN_3$

$BG := \frac{N_3 \cdot BF}{BN_3}$ $EG := \frac{BG}{N_4}$

$R := \frac{N_5}{EG}$ $R = 2.947144$



$N_1 = 2.00000$
$N_2 = 3.00000$
$N_3 = 1.00000$
$N_4 = 0.40000$
$N_5 = 4.00000$
$R = 4.80000$

$\frac{N_2 \cdot N_4 \cdot N_5 \cdot (N_3{}^2+1)}{N_3 \cdot ((N_2+N_1 \cdot N_3)-N_2 \cdot N_3)} - R = 0.00000$

Definitions.

$$R - \frac{N_2 \cdot N_4 \cdot N_5 \cdot \left(N_3{}^2 + 1\right)}{N_3 \cdot \left(N_2 + N_1 \cdot N_3 - N_2 \cdot N_3\right)} = 0$$

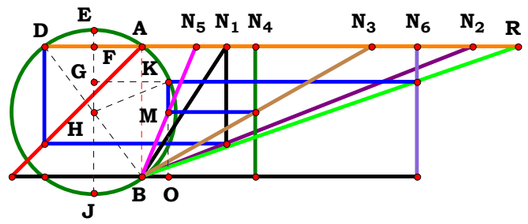
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$

$$R - \frac{A \cdot N_u \cdot \left(C^2 + N_u{}^2\right)}{E \cdot \left[A \cdot C \cdot D - D \cdot N_u \cdot (A - B)\right]} = 0$$

$N_1 - \frac{V}{l} = 0$ $N_2 - \frac{W}{m} = 0$ $N_3 - \frac{X}{n} = 0$ $N_4 - \frac{Y}{o} = 0$ $N_5 - \frac{Z}{p} = 0$

$$R - \frac{W \cdot Y \cdot Z \cdot l \cdot \left(X^2 + n^2\right)}{X \cdot o \cdot p \cdot (V \cdot X \cdot m - W \cdot X \cdot l + W \cdot l \cdot n)} = 0$$

4RST4AB6R8



$N_1 = 0.64635$
$N_2 = 2.53508$
$N_3 = 1.76258$
$N_4 = 0.87386$
$N_5 = 0.41649$
$N_6 = 2.11150$
$R = 2.88713$

Unit. $AB := 1$ Given. $N_1 := .64635$ $N_2 := 2.53508$ $N_3 := 1.76258$ $N_4 := .87386$ $N_5 := .41649$ $N_6 := 2.11150$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $F := \frac{N_u}{N_6}$

Descriptions.

$AD := \frac{N_2 - N_1}{N_2}$ $EJ := \sqrt{AD^2 + AB^2}$ $EF := \frac{EJ - AB}{2}$

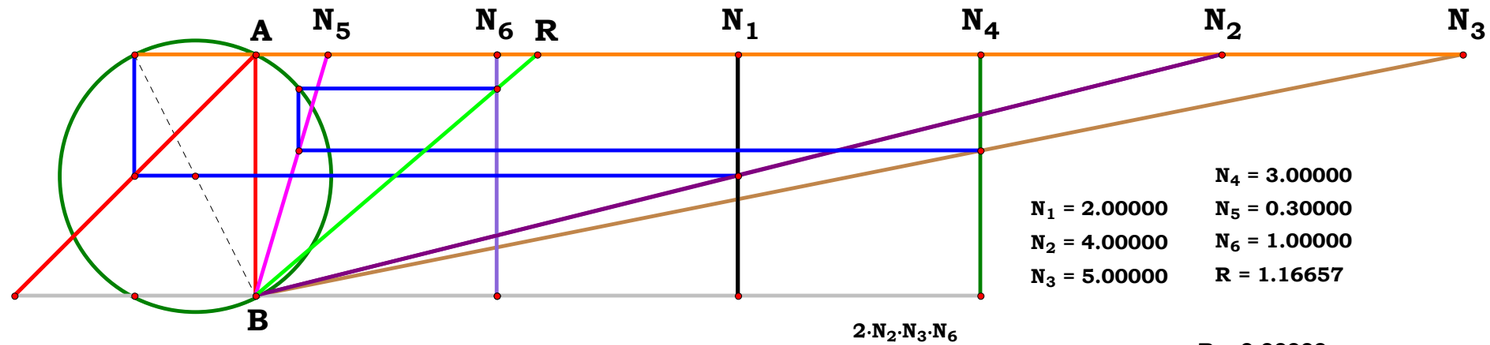
$MO := \frac{N_4}{N_3}$ $BO := N_5 \cdot MO$ $GK := BO + \frac{AD}{2}$

$HK := \frac{EJ}{2}$ $GH := \sqrt{HK^2 - GK^2}$

$KO := HK + GH - EF$ $R := \frac{N_6}{KO}$

$R = 2.887152$

$U := 18$ $V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $k := \frac{U}{N_1}$ $l := \frac{V}{N_2}$ $m := \frac{W}{N_3}$ $n := \frac{X}{N_4}$ $o := \frac{Y}{N_5}$ $p := \frac{Z}{N_6}$



$N_1 = 2.00000$ $N_4 = 3.00000$
$N_2 = 4.00000$ $N_5 = 0.30000$
$N_3 = 5.00000$ $N_6 = 1.00000$
$R = 1.16657$

$$\frac{2 \cdot N_2 \cdot N_3 \cdot N_6}{N_2 \cdot N_3 + \sqrt{N_2^2 \cdot N_3^2 - 4 \cdot N_2 \cdot N_4 \cdot N_5 \cdot ((N_2 \cdot N_3 - N_1 \cdot N_3) + N_2 \cdot N_4 \cdot N_5)}} - R = 0.00000$$

Definitions.

$$R - \frac{2 \cdot N_2 \cdot N_3 \cdot N_6}{N_2 \cdot N_3 + \sqrt{N_2^2 \cdot N_3^2 - 4 \cdot N_2 \cdot N_4 \cdot N_5 \cdot (N_2 \cdot N_3 - N_1 \cdot N_3 + N_2 \cdot N_4 \cdot N_5)}} = 0$$

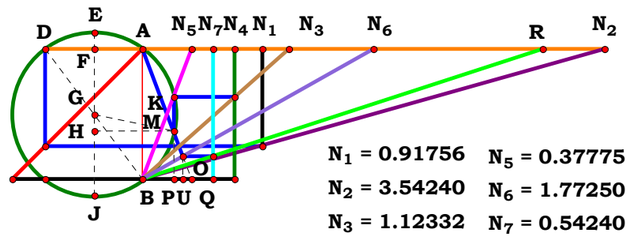
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$ $N_6 - \frac{N_u}{F} = 0$

$$R - \frac{2 \cdot N_u \cdot \sqrt{A} \cdot D \cdot E}{F \cdot \left[\sqrt{A \cdot D^2 \cdot E^2 - 4 \cdot C \cdot N_u \cdot [A \cdot C \cdot N_u + D \cdot E \cdot (A - B)]} + \sqrt{A} \cdot D \cdot E\right]} = 0$$

$N_1 - \frac{U}{k} = 0$ $N_2 - \frac{V}{l} = 0$ $N_3 - \frac{W}{m} = 0$ $N_4 - \frac{X}{n} = 0$ $N_5 - \frac{Y}{o} = 0$ $N_6 - \frac{Z}{p} = 0$

$$R - \frac{2 \cdot V \cdot W \cdot Z \cdot \sqrt{k} \cdot n \cdot o}{p \cdot \left[\sqrt{4 \cdot Y \cdot V \cdot W \cdot X \cdot m \cdot n \cdot o \cdot (U \cdot l - V \cdot k) + V^2 \cdot k \cdot (W^2 \cdot n^2 \cdot o^2 - 4 \cdot X^2 \cdot Y^2 \cdot m^2)} + V \cdot W \cdot \sqrt{k} \cdot n \cdot o\right]} = 0$$

4RST4AB6R10



$N_1 = 0.91756$ $N_5 = 0.37775$
$N_2 = 3.54240$ $N_6 = 1.77250$
$N_3 = 1.12332$ $N_7 = 0.54240$
$N_4 = 0.70920$ $R = 3.07450$

Unit. $AB := 1$ **Given.** $N_1 := .91756$ $N_2 := 3.54240$ $N_3 := 1.12332$ $N_4 := .70920$

$N_5 := .37775$ $N_6 := 1.77250$ $N_7 := .54240$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $F := \frac{N_u}{N_6}$ $G := \frac{N_u}{N_7}$

$T := 19$ $U := 18$ $V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$j := \frac{T}{N_1}$ $k := \frac{U}{N_2}$ $l := \frac{V}{N_3}$ $m := \frac{W}{N_4}$ $n := \frac{X}{N_5}$ $o := \frac{Y}{N_6}$ $p := \frac{Z}{N_7}$

Descriptions.

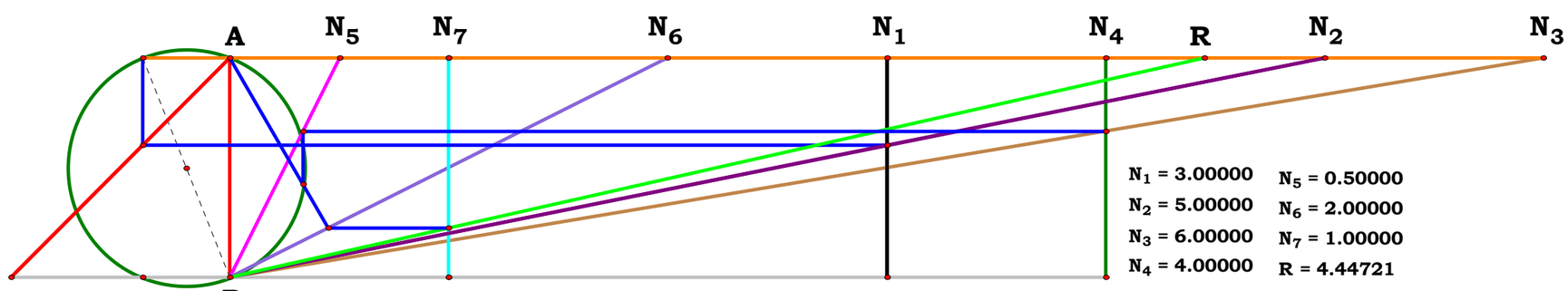
$AD := \frac{N_2 - N_1}{N_2}$ $BP := N_5 \cdot \frac{N_4}{N_3}$ $EJ := \sqrt{AD^2 + AB^2}$

$EF := \frac{EJ - AB}{2}$ $GM := \frac{EJ}{2}$ $HM := \frac{AD}{2} + BP$

$GH := \sqrt{GM^2 - HM^2}$ $FH := GM + GH - EF$

$BQ := \frac{BP}{FH}$ $BU := \frac{N_6 \cdot BQ}{N_6 + BQ}$ $OU := \frac{BU}{N_6}$

$R := \frac{N_7}{OU}$ $R = 3.074367$



$N_1 = 3.00000$ $N_5 = 0.50000$
$N_2 = 5.00000$ $N_6 = 2.00000$
$N_3 = 6.00000$ $N_7 = 1.00000$
$N_4 = 4.00000$ $R = 4.44721$

B

$$\frac{N_7 \cdot \left(N_2 \cdot (N_3 \cdot N_6 + 2 \cdot N_4 \cdot N_5) + N_6 \cdot \sqrt{N_2^2 \cdot N_3^2 - 4 \cdot N_2 \cdot N_4 \cdot N_5 \cdot ((N_2 \cdot N_3 - N_1 \cdot N_3) + N_2 \cdot N_4 \cdot N_5)}\right)}{2 \cdot N_2 \cdot N_4 \cdot N_5} - R = 0.00000$$

Definitions.

$$R - \frac{N_7 \cdot \left[N_6 \cdot \sqrt{N_2^2 \cdot N_3^2 - 4 \cdot N_2 \cdot N_4 \cdot N_5 \cdot (N_2 \cdot N_3 - N_1 \cdot N_3 + N_2 \cdot N_4 \cdot N_5)} + N_2 \cdot (N_3 \cdot N_6 + 2 \cdot N_4 \cdot N_5)\right]}{2 \cdot N_2 \cdot N_4 \cdot N_5} = 0$$

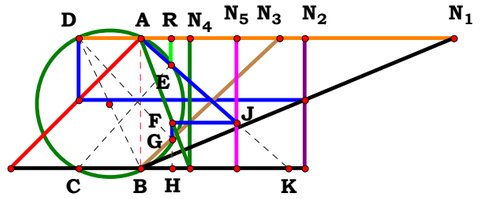
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$ $N_6 - \frac{N_u}{F} = 0$ $N_7 - \frac{N_u}{G} = 0$

$$R - \frac{N_u \cdot \left[\sqrt{A \cdot D^2 \cdot E^2 - 4 \cdot C \cdot N_u \cdot [A \cdot C \cdot N_u + D \cdot E \cdot (A - B)]} + \sqrt{A} \cdot (2 \cdot C \cdot F + D \cdot E)\right]}{2 \cdot C \cdot F \cdot G \cdot \sqrt{A}} = 0$$

$N_1 - \frac{T}{j} = 0$ $N_2 - \frac{U}{k} = 0$ $N_3 - \frac{V}{l} = 0$ $N_4 - \frac{W}{m} = 0$ $N_5 - \frac{X}{n} = 0$ $N_6 - \frac{Y}{o} = 0$ $N_7 - \frac{Z}{p} = 0$

$$R - \frac{Z \cdot \left[Y \cdot \sqrt{U^2 \cdot j \cdot \left(V^2 \cdot m^2 \cdot n^2 - 4 \cdot W^2 \cdot X^2 \cdot l^2\right) + 4 \cdot V \cdot U \cdot W \cdot X \cdot l \cdot m \cdot n \cdot (T \cdot k - U \cdot j)} + \sqrt{j} \cdot U \cdot (V \cdot Y \cdot m \cdot n + 2 \cdot W \cdot X \cdot l \cdot o)\right]}{2 \cdot U \cdot W \cdot X \cdot l \cdot o \cdot p \cdot \sqrt{j}} = 0$$

4RST5AB1R0



$N_1 = 2.39948$
$N_2 = 1.25656$
$N_3 = 1.06757$
$N_4 = 0.37752$
$N_5 = 0.73612$
$R = 0.22832$

Unit. $AB := 1$ **Given.** $N_1 := 2.39948$ $N_2 := 1.25656$ $N_3 := 1.06757$ $N_4 := .37752$ $N_5 := .73612$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$

$V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$l := \frac{V}{N_1}$ $m := \frac{W}{N_2}$ $n := \frac{X}{N_3}$ $o := \frac{Y}{N_4}$ $p := \frac{Z}{N_5}$

Descriptions.

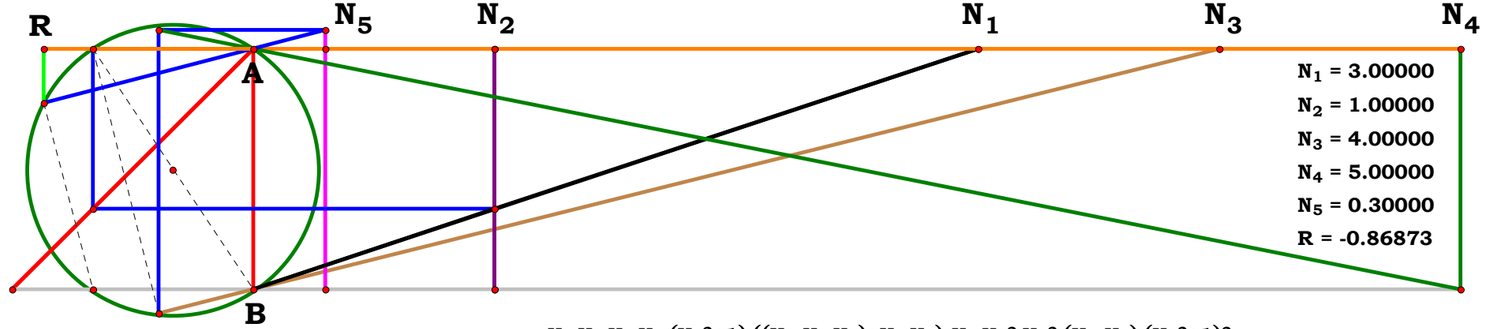
$$AD := AB - \frac{N_2}{N_1} \qquad BN_3 := \sqrt{AB^2 + N_3^2} \qquad GN_3 := \frac{N_3 \cdot (N_3 + AD)}{BN_3}$$

$$BG := BN_3 - GN_3 \qquad BH := \frac{N_3 \cdot BG}{BN_3} \qquad FH := \frac{N_4 - BH}{N_4}$$

$$BK := \frac{N_5}{AB - FH} \qquad AK := \sqrt{AB^2 + BK^2}$$

$$EK := \frac{BK \cdot (BK + AD)}{AK} \qquad AE := AK - EK$$

$$R := \frac{BK \cdot AE}{AK} \qquad R = 0.228316$$



$$\frac{N_1 \cdot N_3 \cdot N_4 \cdot N_5 \cdot (N_3^2+1) \cdot ((N_1 - N_1 \cdot N_3) + N_2 \cdot N_3) - N_1 \cdot N_4^2 \cdot N_5^2 \cdot (N_1 - N_2) \cdot (N_3^2+1)^2}{(N_1 \cdot N_4 \cdot N_5 \cdot (N_3^2+1))^2 + N_3^2 \cdot ((N_1 - N_1 \cdot N_3) + N_2 \cdot N_3)^2} - R = 0.00000$$

Definitions.

$$R - \frac{N_4 \cdot N_5 \cdot (N_3^2 + 1) \cdot (N_3 - AD \cdot N_3^2 - AD \cdot N_4 \cdot N_5 - AD \cdot N_3^2 \cdot N_4 \cdot N_5)}{AD^2 \cdot N_3^4 - 2 \cdot AD \cdot N_3^3 + N_3^4 \cdot N_4^2 \cdot N_5^2 + 2 \cdot N_3^2 \cdot N_4^2 \cdot N_5^2 + N_3^2 + N_4^2 \cdot N_5^2} = 0$$

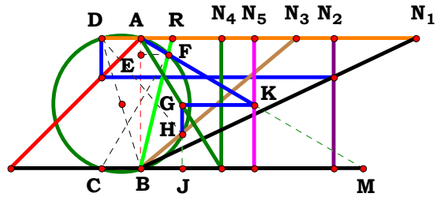
$$R - \frac{N_1 \cdot N_3 \cdot N_4 \cdot N_5 \cdot (N_3^2 + 1) \cdot (N_1 - N_1 \cdot N_3 + N_2 \cdot N_3) - N_1 \cdot N_4^2 \cdot N_5^2 \cdot (N_3^2 + 1)^2 \cdot (N_1 - N_2)}{N_1^2 \cdot N_4^2 \cdot N_5^2 \cdot (N_3^2 + 1)^2 + N_3^2 \cdot (N_1 - N_1 \cdot N_3 + N_2 \cdot N_3)^2} = 0$$

$$N_1 - \frac{N_u}{A} = 0 \qquad N_2 - \frac{N_u}{B} = 0 \qquad N_3 - \frac{N_u}{C} = 0 \qquad N_4 - \frac{N_u}{D} = 0 \qquad N_5 - \frac{N_u}{E} = 0$$

$$R - \frac{B \cdot N_u \cdot (C^2 + N_u^2) \cdot [N_u \cdot (C^2 + N_u^2) \cdot (A - B) + D \cdot E \cdot N_u \cdot (A - B) + B \cdot C \cdot D \cdot E]}{E^2 \cdot D^2 \cdot (B \cdot C + A \cdot N_u - B \cdot N_u)^2 + B^2 \cdot N_u^2 \cdot (C^2 + N_u^2)^2} = 0 \qquad N_1 - \frac{V}{l} = 0 \qquad N_2 - \frac{W}{m} = 0 \qquad N_3 - \frac{X}{n} = 0 \qquad N_4 - \frac{Y}{o} = 0 \qquad N_5 - \frac{Z}{p} = 0$$

$$R - \frac{V \cdot Y \cdot Z \cdot m \cdot (X^2 + n^2) \cdot [Y \cdot Z \cdot (X^2 + n^2) \cdot (W \cdot l - V \cdot m) + X \cdot o \cdot p \cdot (W \cdot X \cdot l - V \cdot X \cdot m + V \cdot m \cdot n)]}{Y^2 \cdot V^2 \cdot Z^2 \cdot m^2 \cdot (X^2 + n^2)^2 + X^2 \cdot o^2 \cdot p^2 \cdot (V \cdot X \cdot m - W \cdot X \cdot l - V \cdot m \cdot n)^2} = 0$$

4RST5AB1R1



$N_1 = 2.10891$
$N_2 = 1.47933$
$N_3 = 1.19349$
$N_4 = 0.61966$
$N_5 = 0.87172$
$R = 0.24517$

Unit. $AB := 1$ Given. $N_1 := 2.10891$ $N_2 := 1.47933$ $N_3 := 1.19349$ $N_4 := .61966$ $N_5 := .87172$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$

$V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $l := \frac{V}{N_1}$ $m := \frac{W}{N_2}$ $n := \frac{X}{N_3}$ $o := \frac{Y}{N_4}$ $p := \frac{Z}{N_5}$

Descriptions.

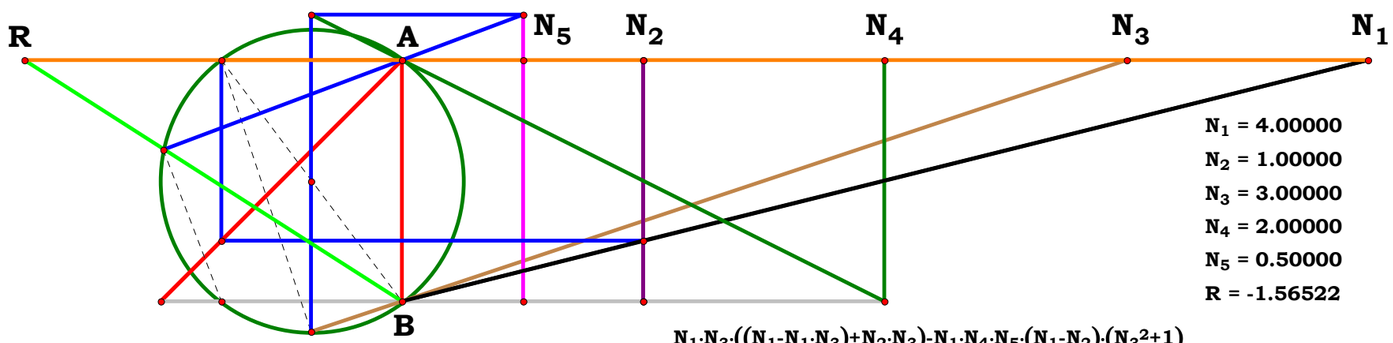
$$AD := AB - \frac{N_2}{N_1} \qquad BN_3 := \sqrt{AB^2 + N_3^2} \qquad HN_3 := \frac{N_3 \cdot (N_3 + AD)}{BN_3}$$

$$BH := BN_3 - HN_3 \qquad BJ := \frac{N_3 \cdot BH}{BN_3} \qquad HJ := \frac{N_4 - BJ}{N_4}$$

$$BM := \frac{N_5}{AB - HJ} \qquad AM := \sqrt{AB^2 + BM^2}$$

$$FM := \frac{BM \cdot (BM + AD)}{AM} \qquad AF := AM - FM \qquad AE := \frac{AF}{AM}$$

$$EF := \frac{BM \cdot AF}{AM} \qquad R := \frac{EF}{AB - AE} \qquad R = 0.245164$$



$N_1 = 4.00000$
$N_2 = 1.00000$
$N_3 = 3.00000$
$N_4 = 2.00000$
$N_5 = 0.50000$
$R = -1.56522$

$$\frac{N_1 \cdot N_3 \cdot ((N_1 - N_1 \cdot N_3) + N_2 \cdot N_3) - N_1 \cdot N_4 \cdot N_5 \cdot (N_1 - N_2) \cdot (N_3^2 + 1)}{N_1^2 \cdot N_4 \cdot N_5 \cdot (N_3^2 + 1) + N_3 \cdot (N_1 - N_2) \cdot ((N_1 - N_1 \cdot N_3) + N_2 \cdot N_3)} - R = 0.00000$$

Definitions.

$$R - \frac{AD \cdot N_3^2 - N_3 + AD \cdot N_4 \cdot N_5 + AD \cdot N_3^2 \cdot N_4 \cdot N_5}{AD^2 \cdot N_3^2 - AD \cdot N_3 - N_4 \cdot N_5 \cdot N_3^2 - N_4 \cdot N_5} = 0$$

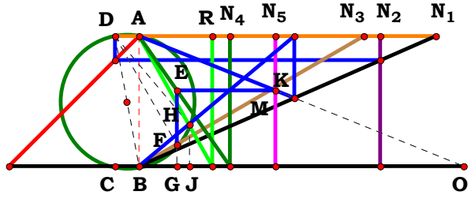
$$R - \frac{N_1 \cdot N_3 \cdot (N_1 - N_1 \cdot N_3 + N_2 \cdot N_3) - N_1 \cdot N_4 \cdot N_5 \cdot (N_3^2 + 1) \cdot (N_1 - N_2)}{N_1^2 \cdot N_4 \cdot N_5 \cdot (N_3^2 + 1) + N_3 \cdot (N_1 - N_2) \cdot (N_1 - N_1 \cdot N_3 + N_2 \cdot N_3)} = 0$$

$$N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0 \quad N_4 - \frac{N_u}{D} = 0 \quad N_5 - \frac{N_u}{E} = 0$$

$$R - \frac{B \cdot [E \cdot D \cdot [B \cdot C + N_u \cdot (A - B)] + N_u \cdot (C^2 + N_u^2) \cdot (A - B)]}{B^2 \cdot N_u \cdot (C^2 + N_u^2) - E \cdot D \cdot (A - B) \cdot (B \cdot C + A \cdot N_u - B \cdot N_u)} = 0 \qquad N_1 - \frac{V}{l} = 0 \quad N_2 - \frac{W}{m} = 0 \quad N_3 - \frac{X}{n} = 0 \quad N_4 - \frac{Y}{o} = 0 \quad N_5 - \frac{Z}{p} = 0$$

$$R - \frac{V \cdot m \cdot [Y \cdot Z \cdot (X^2 + n^2) \cdot (W \cdot l - V \cdot m) + X \cdot o \cdot p \cdot (W \cdot X \cdot l - V \cdot X \cdot m + V \cdot m \cdot n)]}{Y \cdot V^2 \cdot Z \cdot m^2 \cdot (X^2 + n^2) + X \cdot o \cdot p \cdot (V \cdot m - W \cdot l) \cdot (W \cdot X \cdot l - V \cdot X \cdot m + V \cdot m \cdot n)} = 0$$

4RST5AB1R2



$N_1 = 2.27357$
$N_2 = 1.84739$
$N_3 = 1.72621$
$N_4 = 0.69715$
$N_5 = 1.04606$
$R = 0.56545$

Unit. $AB := 1$ Given. $N_1 := 2.27357$ $N_2 := 1.84739$ $N_3 := 1.72621$

$N_4 := .69715$ $N_5 := 1.04606$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$

$V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $l := \frac{V}{N_1}$ $m := \frac{W}{N_2}$ $n := \frac{X}{N_3}$ $o := \frac{Y}{N_4}$ $p := \frac{Z}{N_5}$

Descriptions.

$$AD := AB - \frac{N_2}{N_1} \qquad BN_3 := \sqrt{AB^2 + N_3{}^2} \qquad FN_3 := \frac{N_3 \cdot (N_3 + AD)}{BN_3}$$

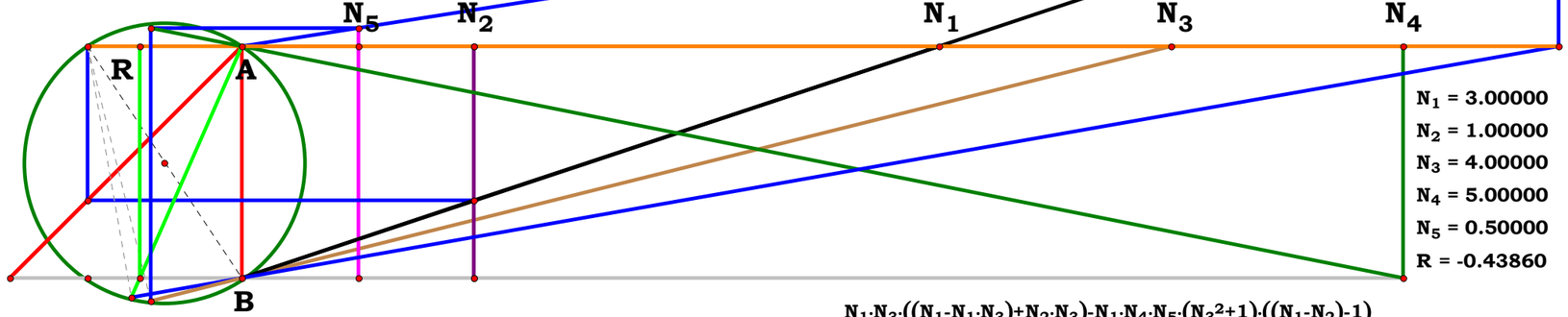
$$BF := BN_3 - FN_3 \qquad BG := \frac{N_3 \cdot BF}{BN_3} \qquad EG := \frac{N_4 - BG}{N_4}$$

$$BO := \frac{N_5}{AB - EG} \qquad AK := \frac{BO \cdot N_1}{BO + N_1}$$

$$BK := \sqrt{AB^2 + AK^2} \qquad HK := \frac{AK \cdot (AK + AD)}{BK}$$

$$BH := BK - HK \qquad BJ := \frac{AK \cdot BH}{BK}$$

$$HJ := \frac{BJ}{AK} \qquad R := \frac{BJ}{AB - HJ} \qquad R = 0.565442$$



$N_1 = 3.00000$
$N_2 = 1.00000$
$N_3 = 4.00000$
$N_4 = 5.00000$
$N_5 = 0.50000$
$R = -0.43860$

$$\frac{N_1 \cdot N_3 \cdot ((N_1 - N_1 \cdot N_3) + N_2 \cdot N_3) - N_1 \cdot N_4 \cdot N_5 \cdot (N_3{}^2 + 1) \cdot ((N_1 - N_2) - 1)}{N_4 \cdot N_5 \cdot (N_3{}^2 + 1) \cdot (N_1{}^2 + (N_1 - N_2)) + N_3 \cdot (N_1 - N_2) \cdot ((N_1 - N_1 \cdot N_3) + N_2 \cdot N_3)} - R = 0.00000$$

Definitions.

$$R - \frac{N_1 \cdot N_3 + N_4 \cdot N_5 - AD \cdot N_1 \cdot N_3{}^2 + N_3{}^2 \cdot N_4 \cdot N_5 - AD \cdot N_1 \cdot N_4 \cdot N_5 - AD \cdot N_1 \cdot N_3{}^2 \cdot N_4 \cdot N_5}{N_4 \cdot N_5 \cdot AD \cdot N_3{}^2 - N_1 \cdot AD^2 \cdot N_3{}^2 + N_1 \cdot AD \cdot N_3 + N_4 \cdot N_5 \cdot AD + N_1 \cdot N_4 \cdot N_5 \cdot N_3{}^2 + N_1 \cdot N_4 \cdot N_5} = 0$$

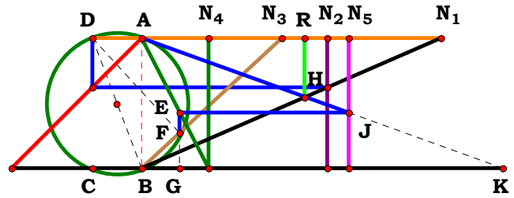
$$R - \frac{N_1 \cdot N_3 \cdot (N_1 - N_1 \cdot N_3 + N_2 \cdot N_3) - N_1 \cdot N_4 \cdot N_5 \cdot (N_3{}^2 + 1) \cdot (N_1 - N_2 - 1)}{N_4 \cdot N_5 \cdot (N_3{}^2 + 1) \cdot (N_1{}^2 + N_1 - N_2) + N_3 \cdot (N_1 - N_2) \cdot (N_1 - N_1 \cdot N_3 + N_2 \cdot N_3)} = 0$$

$$N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0 \quad N_4 - \frac{N_u}{D} = 0 \quad N_5 - \frac{N_u}{E} = 0$$

$$R - \frac{E \cdot B \cdot D \cdot [B \cdot C + N_u \cdot (A - B)] + B \cdot (C^2 + N_u{}^2) \cdot [A \cdot B + N_u \cdot (A - B)]}{B \cdot (C^2 + N_u{}^2) \cdot (A \cdot B - A^2 + B \cdot N_u) - E \cdot D \cdot (A - B) \cdot [B \cdot C + N_u \cdot (A - B)]} = 0 \qquad N_1 - \frac{V}{l} = 0 \quad N_2 - \frac{W}{m} = 0 \quad N_3 - \frac{X}{n} = 0 \quad N_4 - \frac{Y}{o} = 0 \quad N_5 - \frac{Z}{p} = 0$$

$$R - \frac{V \cdot m \cdot [Y \cdot Z \cdot (X^2 + n^2) \cdot (W \cdot l - V \cdot m + l \cdot m) + X \cdot o \cdot p \cdot (W \cdot X \cdot l - V \cdot X \cdot m + V \cdot m \cdot n)]}{Y \cdot Z \cdot m \cdot (X^2 + n^2) \cdot (m \cdot V^2 + m \cdot V \cdot l - W \cdot l^2) + X \cdot o \cdot p \cdot (V \cdot m - W \cdot l) \cdot (W \cdot X \cdot l - V \cdot X \cdot m + V \cdot m \cdot n)} = 0$$

4RST5AB1R3



$N_1 = 2.29294$
$N_2 = 1.42122$
$N_3 = 1.07726$
$N_4 = 0.51312$
$N_5 = 1.58847$
$R = 1.25419$

Unit. $AB := 1$ Given. $N_1 := 2.29294$ $N_2 := 1.42122$ $N_3 := 1.07726$

$N_4 := .51312$ $N_5 := 1.58847$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$

Descriptions.

$V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $l := \frac{V}{N_1}$ $m := \frac{W}{N_2}$ $n := \frac{X}{N_3}$ $o := \frac{Y}{N_4}$ $p := \frac{Z}{N_5}$

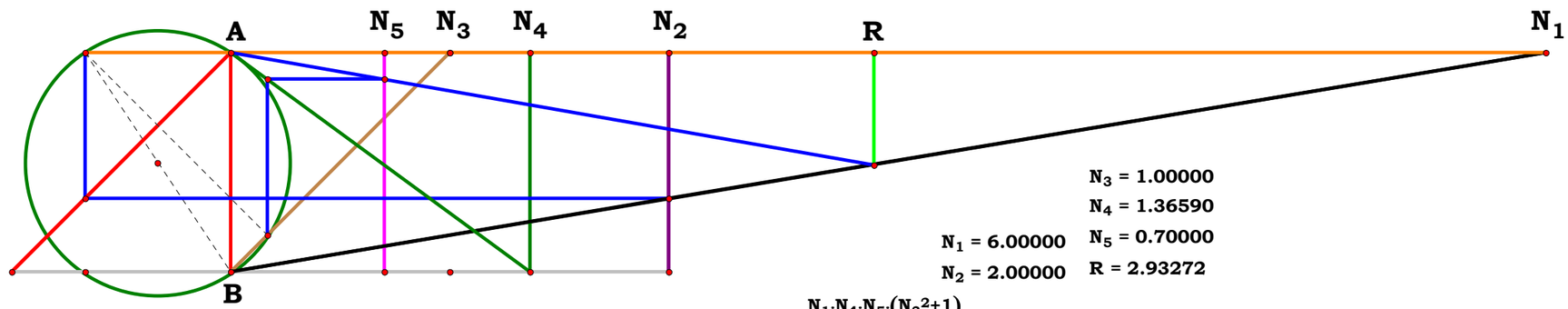
$AD := AB - \frac{N_2}{N_1}$ $BN_3 := \sqrt{AB^2 + N_3^2}$

$FN_3 := \frac{N_3 \cdot (N_3 + AD)}{BN_3}$ $BF := BN_3 - FN_3$

$BG := \frac{N_3 \cdot BF}{BN_3}$ $EG := \frac{N_4 - BG}{N_4}$

$BK := \frac{N_5}{AB - EG}$ $R := \frac{BK \cdot N_1}{BK + N_1}$

$R = 1.25419$



$N_3 = 1.00000$
$N_4 = 1.36590$
$N_5 = 0.70000$
$R = 2.93272$

$N_1 = 6.00000$
$N_2 = 2.00000$

$\frac{N_1 \cdot N_4 \cdot N_5 \cdot (N_3^2+1)}{(N_2 \cdot N_3^2 - N_1 \cdot N_3^2) + N_1 \cdot N_3 + N_4 \cdot N_5 + N_3^2 \cdot N_4 \cdot N_5} - R = 0.00000$

Definitions.

$$R - \frac{N_1 \cdot N_4 \cdot N_5 \cdot (N_3^2 + 1)}{N_1 \cdot N_3 + N_4 \cdot N_5 - AD \cdot N_1 \cdot N_3^2 + N_3^2 \cdot N_4 \cdot N_5} = 0$$

$$R - \frac{N_1 \cdot N_4 \cdot N_5 \cdot (N_3^2 + 1)}{N_2 \cdot N_3^2 - N_1 \cdot N_3^2 + N_1 \cdot N_3 + N_4 \cdot N_5 + N_3^2 \cdot N_4 \cdot N_5} = 0$$

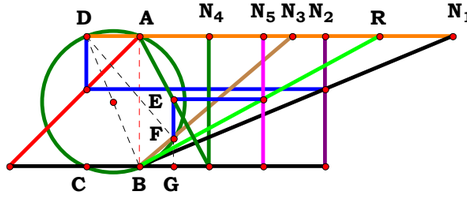
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$

$$R - \frac{B \cdot N_u \cdot (C^2 + N_u^2)}{E \cdot D \cdot [B \cdot C + N_u \cdot (A - B)] + A \cdot B \cdot (C^2 + N_u^2)} = 0$$

$N_1 - \frac{V}{l} = 0$ $N_2 - \frac{W}{m} = 0$ $N_3 - \frac{X}{n} = 0$ $N_4 - \frac{Y}{o} = 0$ $N_5 - \frac{Z}{p} = 0$

$$R - \frac{V \cdot Y \cdot Z \cdot m \cdot (X^2 + n^2)}{Y \cdot Z \cdot l \cdot m \cdot (X^2 + n^2) + X \cdot o \cdot p \cdot (W \cdot X \cdot l - V \cdot X \cdot m + V \cdot m \cdot n)} = 0$$

4RST5AB1R4



$N_1 = 2.39948$
$N_2 = 1.42122$
$N_3 = 1.17412$
$N_4 = 0.53249$
$N_5 = 0.94921$
$R = 1.83694$

Unit. $AB := 1$ **Given.** $N_1 := 2.39948$ $N_2 := 1.42122$ $N_3 := 1.17412$

$N_4 := .53249$ $N_5 := .94921$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$

$V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $l := \frac{V}{N_1}$ $m := \frac{W}{N_2}$ $n := \frac{X}{N_3}$ $o := \frac{Y}{N_4}$ $p := \frac{Z}{N_5}$

Descriptions.

$$AD := AB - \frac{N_2}{N_1} \qquad BN_3 := \sqrt{AB^2 + N_3^2} \qquad FN_3 := \frac{N_3 \cdot (N_3 + AD)}{BN_3}$$

$$BF := BN_3 - FN_3 \qquad BG := \frac{N_3 \cdot BF}{BN_3} \qquad EG := \frac{N_4 - BG}{N_4}$$

$$R := \frac{N_5}{EG} \qquad R = 1.836947$$

Definitions.

$$R - \frac{N_4 \cdot N_5 \cdot (N_3^2 + 1)}{N_4 - N_3 + N_3^2 \cdot N_4 + AD \cdot N_3^2} = 0$$

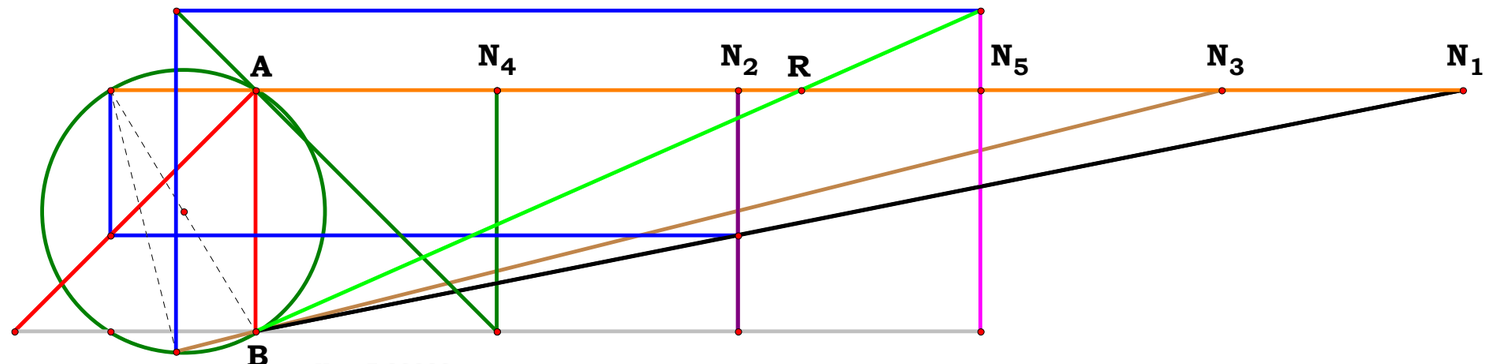
$$R - \frac{N_1 \cdot N_4 \cdot N_5 \cdot (N_3^2 + 1)}{N_1 \cdot N_3^2 - N_2 \cdot N_3^2 - N_1 \cdot N_3 + N_1 \cdot N_4 + N_1 \cdot N_3^2 \cdot N_4} = 0$$

$$N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0 \quad N_4 - \frac{N_u}{D} = 0 \quad N_5 - \frac{N_u}{E} = 0$$

$$R - \frac{B \cdot N_u \cdot (C^2 + N_u^2)}{E \cdot [B \cdot C \cdot (C - D) + B \cdot N_u^2 - D \cdot N_u \cdot (A - B)]} = 0$$

$$N_1 - \frac{V}{l} = 0 \quad N_2 - \frac{W}{m} = 0 \quad N_3 - \frac{X}{n} = 0 \quad N_4 - \frac{Y}{o} = 0 \quad N_5 - \frac{Z}{p} = 0$$

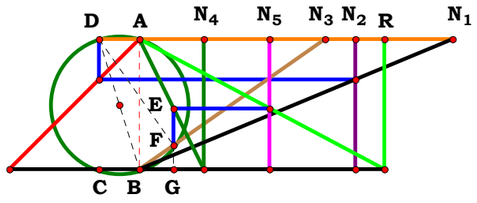
$$R - \frac{V \cdot Y \cdot Z \cdot m \cdot (X^2 + n^2)}{p \cdot [Y \cdot V \cdot m \cdot (X^2 + n^2) + X \cdot o \cdot (V \cdot X \cdot m - W \cdot X \cdot l - V \cdot m \cdot n)]} = 0$$



$N_1 = 5.00000$
$N_2 = 2.00000$
$N_3 = 4.00000$
$N_4 = 1.00000$
$N_5 = 3.00000$
$R = 2.25664$

$$\frac{N_1 \cdot N_4 \cdot N_5 \cdot (N_3^2+1)}{(N_1 \cdot N_3^2 - N_2 \cdot N_3^2 - N_1 \cdot N_3) + N_1 \cdot N_4 + N_1 \cdot N_3^2 \cdot N_4} - R = 0.00000$$

4RST5AB1R5



$N_1 = 2.39948$
$N_2 = 1.65368$
$N_3 = 1.42595$
$N_4 = 0.49375$
$N_5 = 0.99764$
$R = 1.88192$

Unit. $AB := 1$ **Given.** $N_1 := 2.39948$ $N_2 := 1.65368$ $N_3 := 1.42595$

$N_4 := .49375$ $N_5 := .99764$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$

$V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $l := \frac{V}{N_1}$ $m := \frac{W}{N_2}$ $n := \frac{X}{N_3}$ $o := \frac{Y}{N_4}$ $p := \frac{Z}{N_5}$

Descriptions.

$AD := AB - \frac{N_2}{N_1}$ $BN_3 := \sqrt{AB^2 + N_3^2}$

$FN_3 := \frac{N_3 \cdot (N_3 + AD)}{BN_3}$ $BF := BN_3 - FN_3$

$BG := \frac{N_3 \cdot BF}{BN_3}$ $EG := \frac{N_4 - BG}{N_4}$

$R := \frac{N_5}{AB - EG}$ $R = 1.881938$

Definitions.

$$R - \frac{N_4 \cdot N_5 \cdot (N_3^2 + 1)}{N_3 - AD \cdot N_3^2} = 0$$

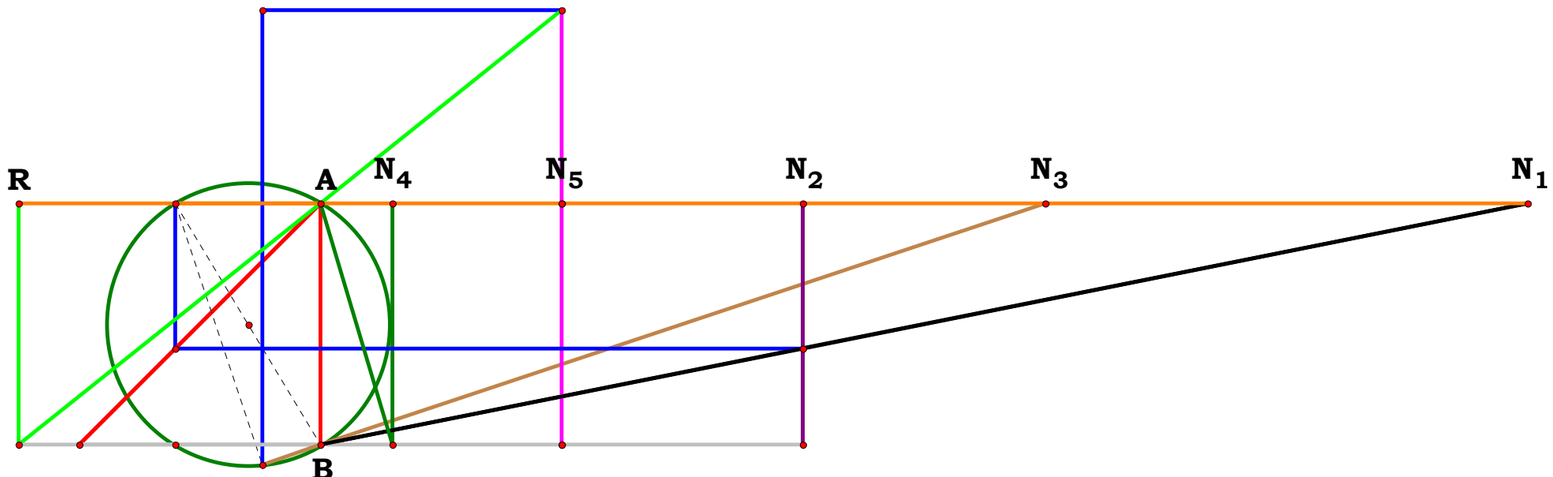
$$R - \frac{N_1 \cdot N_4 \cdot N_5 \cdot (N_3^2 + 1)}{N_3 \cdot (N_1 - N_1 \cdot N_3 + N_2 \cdot N_3)} = 0$$

$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$

$$R - \frac{B \cdot N_u \cdot (C^2 + N_u^2)}{E \cdot [B \cdot C \cdot D + D \cdot N_u \cdot (A - B)]} = 0$$

$N_1 - \frac{V}{l} = 0$ $N_2 - \frac{W}{m} = 0$ $N_3 - \frac{X}{n} = 0$ $N_4 - \frac{Y}{o} = 0$ $N_5 - \frac{Z}{p} = 0$

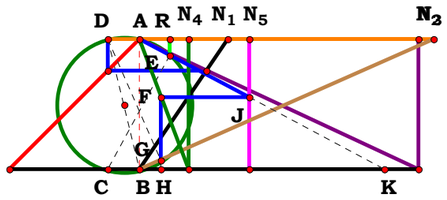
$$R - \frac{V \cdot Y \cdot Z \cdot m \cdot (X^2 + n^2)}{X \cdot o \cdot p \cdot (W \cdot X \cdot l - V \cdot X \cdot m + V \cdot m \cdot n)} = 0$$



$N_1 = 5.00000$
$N_2 = 2.00000$
$N_3 = 3.00000$
$N_4 = 0.30000$
$N_5 = 1.00000$
$R = -1.25000$

$\frac{N_1 \cdot N_4 \cdot N_5 \cdot (N_3^2+1)}{N_3 \cdot ((N_1 - N_1 \cdot N_3) + N_2 \cdot N_3)} - R = 0.00000$

4RST5AB3R0



$N_1 = 0.67541$
$N_2 = 2.13797$
$N_3 = 2.25892$
$N_4 = 0.37752$
$N_5 = 0.84266$
$R = 0.22786$

Unit. $AB := 1$ Given. $N_1 := .67541$ $N_2 := 2.13797$ $N_3 := 2.25892$

$N_4 := .37752$ $N_5 := .84266$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$

$V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $l := \frac{V}{N_1}$ $m := \frac{W}{N_2}$ $n := \frac{X}{N_3}$ $o := \frac{Y}{N_4}$ $p := \frac{Z}{N_5}$

Descriptions.

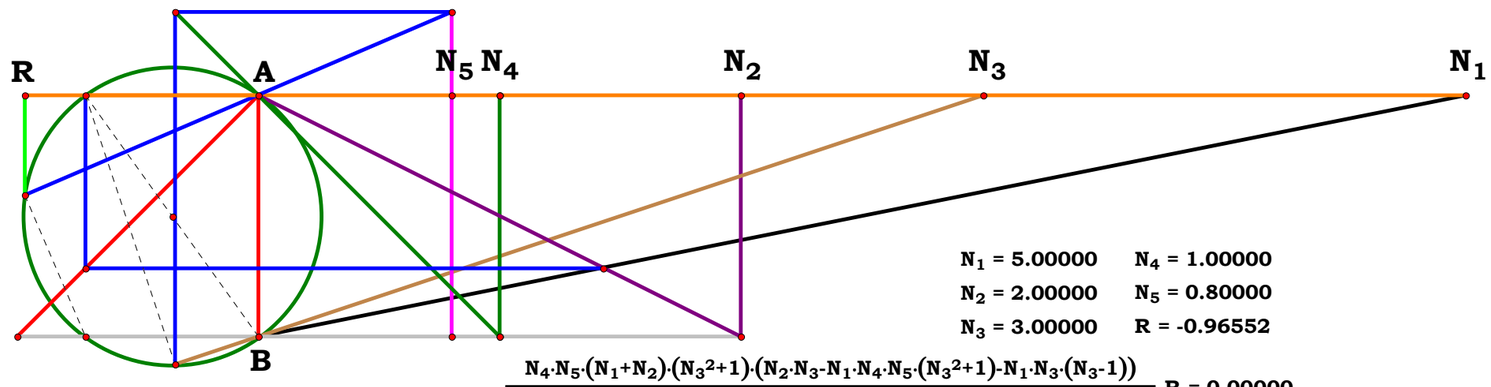
$AD := \frac{N_1}{N_1 + N_2}$ $BN_3 := \sqrt{AB^2 + N_3^2}$

$GN_3 := \frac{N_3 \cdot (N_3 + AD)}{BN_3}$ $BG := BN_3 - GN_3$

$BH := \frac{N_3 \cdot BG}{BN_3}$ $FH := \frac{N_4 - BH}{N_4}$ $BK := \frac{N_5}{AB - FH}$

$AK := \sqrt{AB^2 + BK^2}$ $EK := \frac{BK \cdot (BK + AD)}{AK}$

$AE := AK - EK$ $R := \frac{BK \cdot AE}{AK}$ $R = 0.227861$



$N_1 = 5.00000$ $N_4 = 1.00000$
$N_2 = 2.00000$ $N_5 = 0.80000$
$N_3 = 3.00000$ $R = -0.96552$

$$\frac{N_4 \cdot N_5 \cdot (N_1+N_2) \cdot (N_3^2+1) \cdot (N_2 \cdot N_3 - N_1 \cdot N_4 \cdot N_5 \cdot (N_3^2+1) - N_1 \cdot N_3 \cdot (N_3-1))}{(N_4 \cdot N_5 \cdot (N_1+N_2) \cdot (N_3^2+1))^2 + N_3^2 \cdot (N_1 \cdot N_3 - (N_1+N_2))^2} - R = 0.00000$$

Definitions.

$$R - \frac{N_4 \cdot N_5 \cdot (N_3^2+1) \cdot (N_3 - AD \cdot N_3^2 - AD \cdot N_4 \cdot N_5 - AD \cdot N_3^2 \cdot N_4 \cdot N_5)}{AD^2 \cdot N_3^4 - 2 \cdot AD \cdot N_3^3 + N_3^4 \cdot N_4^2 \cdot N_5^2 + 2 \cdot N_3^2 \cdot N_4^2 \cdot N_5^2 + N_3^2 + N_4^2 \cdot N_5^2} = 0$$

$$R - \frac{N_4 \cdot N_5 \cdot (N_1+N_2) \cdot (N_3^2+1) \cdot [N_2 \cdot N_3 - N_1 \cdot N_4 \cdot N_5 \cdot (N_3^2+1) - N_1 \cdot N_3 \cdot (N_3-1)]}{N_4^2 \cdot N_5^2 \cdot (N_1+N_2)^2 \cdot (N_3^2+1)^2 + N_3^2 \cdot (N_1 \cdot N_3 - N_2 - N_1)^2} = 0$$

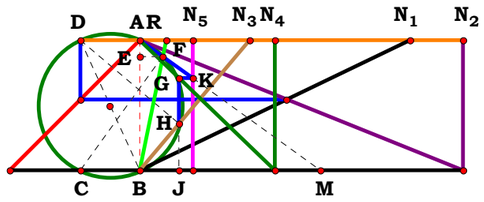
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$

$$R - \frac{N_u \cdot (C^2 + N_u^2) \cdot (A+B) \cdot [E \cdot D \cdot [C \cdot (A+B) - B \cdot N_u] - [B \cdot N_u \cdot (C^2 + N_u^2)]]}{E^2 \cdot D^2 \cdot [C \cdot (A+B) - B \cdot N_u]^2 + N_u^2 \cdot (C^2 + N_u^2)^2 \cdot (A+B)^2} = 0$$

$N_1 - \frac{V}{l} = 0$ $N_2 - \frac{W}{m} = 0$ $N_3 - \frac{X}{n} = 0$ $N_4 - \frac{Y}{o} = 0$ $N_5 - \frac{Z}{p} = 0$

$$R - \frac{Y \cdot Z \cdot (V \cdot m + W \cdot l) \cdot (X^2 + n^2) \cdot [X \cdot o \cdot p \cdot (V \cdot m \cdot n - V \cdot X \cdot m + W \cdot l \cdot n) - V \cdot Y \cdot Z \cdot m \cdot (X^2 + n^2)]}{Y^2 \cdot Z^2 \cdot (X^2 + n^2)^2 \cdot (V \cdot m + W \cdot l)^2 + X^2 \cdot o^2 \cdot p^2 \cdot (V \cdot X \cdot m - V \cdot m \cdot n - W \cdot l \cdot n)^2} = 0$$

4RST5AB3R1



$N_1 = 2.07016$
$N_2 = 2.47697$
$N_3 = 0.84480$
$N_4 = 1.03615$
$N_5 = 0.40680$
$R = 0.19919$

Unit. $AB := 1$ **Given.** $N_1 := 2.07016$ $N_2 := 2.47697$ $N_3 := .84480$

$N_4 := 1.03615$ $N_5 := .40680$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$

$V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $l := \frac{V}{N_1}$ $m := \frac{W}{N_2}$ $n := \frac{X}{N_3}$ $o := \frac{Y}{N_4}$ $p := \frac{Z}{N_5}$

Descriptions.

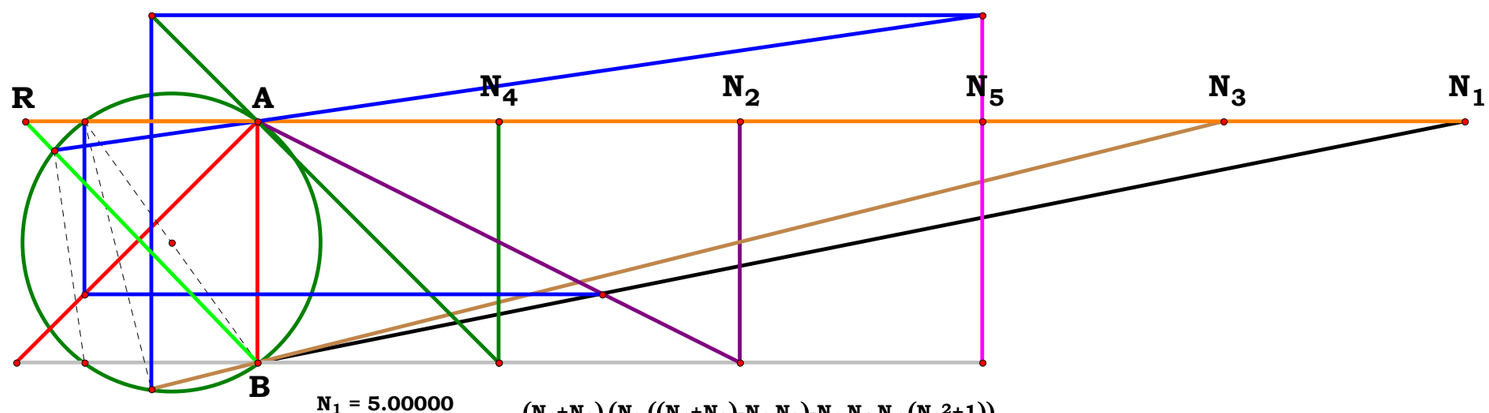
$$AD := \frac{N_1}{N_1 + N_2} \qquad BN_3 := \sqrt{AB^2 + N_3^2} \qquad HN_3 := \frac{N_3 \cdot (N_3 + AD)}{BN_3}$$

$$BH := BN_3 - HN_3 \qquad BJ := \frac{N_3 \cdot BH}{BN_3} \qquad HJ := \frac{N_4 - BJ}{N_4}$$

$$BM := \frac{N_5}{AB - HJ} \qquad AM := \sqrt{AB^2 + BM^2}$$

$$FM := \frac{BM \cdot (BM + AD)}{AM} \qquad AF := AM - FM \qquad AE := \frac{AF}{AM}$$

$$EF := \frac{BM \cdot AF}{AM} \qquad R := \frac{EF}{AB - AE} \qquad R = 0.199193$$



$N_1 = 5.00000$
$N_2 = 2.00000$
$N_3 = 4.00000$
$N_4 = 1.00000$
$N_5 = 3.00000$
$R = -0.95980$

$$\frac{(N_1+N_2)\cdot(N_3\cdot((N_1+N_2)-N_1\cdot N_3)-N_1\cdot N_4\cdot N_5\cdot(N_3^2+1))}{N_4\cdot N_5\cdot(N_1+N_2)^2\cdot(N_3^2+1)+N_1\cdot N_3\cdot((N_1+N_2)-N_1\cdot N_3)} - R = 0.00000$$

Definitions.

$$R - \frac{AD \cdot N_3^2 - N_3 + AD \cdot N_4 \cdot N_5 + AD \cdot N_3^2 \cdot N_4 \cdot N_5}{AD^2 \cdot N_3^2 - AD \cdot N_3 - N_4 \cdot N_5 \cdot N_3^2 - N_4 \cdot N_5} = 0$$

$$R - \frac{(N_1 + N_2) \cdot \left[N_3 \cdot (N_1 + N_2 - N_1 \cdot N_3) - N_1 \cdot N_4 \cdot N_5 \cdot (N_3^2 + 1)\right]}{N_4 \cdot N_5 \cdot (N_1 + N_2)^2 \cdot (N_3^2 + 1) + N_1 \cdot N_3 \cdot (N_1 + N_2 - N_1 \cdot N_3)} = 0$$

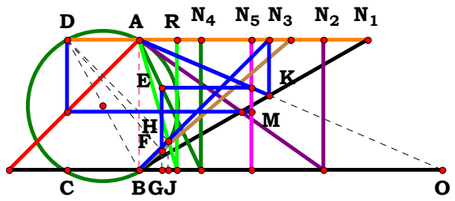
$$N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0 \quad N_4 - \frac{N_u}{D} = 0 \quad N_5 - \frac{N_u}{E} = 0$$

$$R - \frac{(A + B) \cdot \left[E \cdot D \cdot \left[C \cdot (A + B) - B \cdot N_u\right] - \left[B \cdot N_u \cdot (C^2 + N_u^2)\right]\right]}{E \cdot B \cdot D \cdot \left[C \cdot (A + B) - B \cdot N_u\right] + N_u \cdot (C^2 + N_u^2) \cdot (A + B)^2} = 0$$

$$N_1 - \frac{V}{l} = 0 \quad N_2 - \frac{W}{m} = 0 \quad N_3 - \frac{X}{n} = 0 \quad N_4 - \frac{Y}{o} = 0 \quad N_5 - \frac{Z}{p} = 0$$

$$R - \frac{(V \cdot m + W \cdot l) \cdot \left[X \cdot o \cdot p \cdot (V \cdot m \cdot n - V \cdot X \cdot m + W \cdot l \cdot n) - V \cdot Y \cdot Z \cdot m \cdot (X^2 + n^2)\right]}{Y \cdot Z \cdot (X^2 + n^2) \cdot (V \cdot m + W \cdot l)^2 + V \cdot X \cdot m \cdot o \cdot p \cdot (V \cdot m \cdot n - V \cdot X \cdot m + W \cdot l \cdot n)} = 0$$

4RST5AB3R2



$N_1 = 1.75053$
$N_2 = 1.41153$
$N_3 = 1.16443$
$N_4 = 0.47437$
$N_5 = 0.86203$
$R = 0.28775$

Unit. $AB := 1$ Given. $N_1 := 1.75053$ $N_2 := 1.41153$ $N_3 := 1.16443$

$N_4 := .47437$ $N_5 := .86203$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$

$V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $l := \frac{V}{N_1}$ $m := \frac{W}{N_2}$ $n := \frac{X}{N_3}$ $o := \frac{Y}{N_4}$ $p := \frac{Z}{N_5}$

Descriptions.

$AD := \frac{N_1}{N_1 + N_2}$ $BN_3 := \sqrt{AB^2 + N_3^2}$ $FN_3 := \frac{N_3 \cdot (N_3 + AD)}{BN_3}$

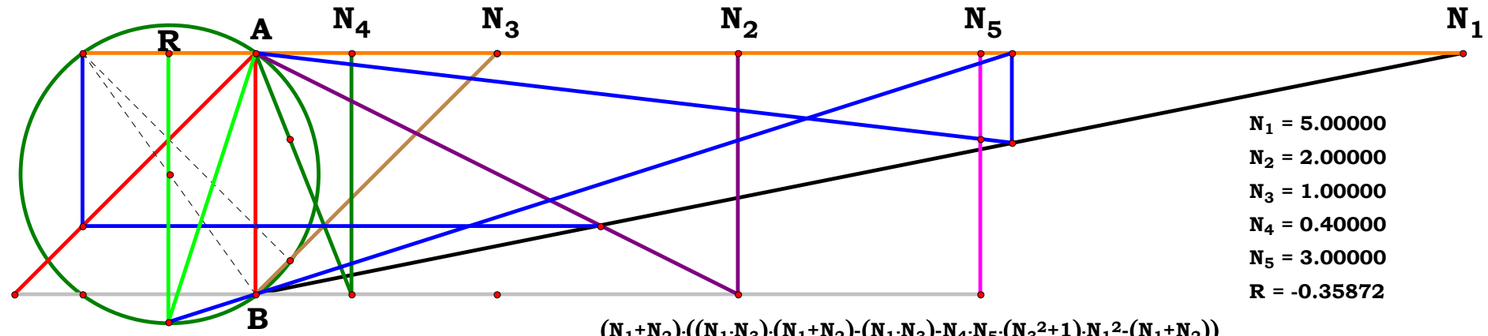
$BF := BN_3 - FN_3$ $BG := \frac{N_3 \cdot BF}{BN_3}$ $EG := \frac{N_4 - BG}{N_4}$

$BO := \frac{N_5}{AB - EG}$ $AK := \frac{BO \cdot N_1}{BO + N_1}$

$BK := \sqrt{AB^2 + AK^2}$ $HK := \frac{AK \cdot (AK + AD)}{BK}$

$BH := BK - HK$ $BJ := \frac{AK \cdot BH}{BK}$

$HJ := \frac{BJ}{AK}$ $R := \frac{BJ}{AB - HJ}$ $R = 0.287754$



$N_1 = 5.00000$
$N_2 = 2.00000$
$N_3 = 1.00000$
$N_4 = 0.40000$
$N_5 = 3.00000$
$R = -0.35872$

$$\frac{(N_1+N_2)\cdot((N_1\cdot N_3)\cdot(N_1+N_2)-(N_1\cdot N_3)-N_4\cdot N_5\cdot(N_3^2+1)\cdot N_1^2-(N_1+N_2))}{N_1\cdot N_4\cdot N_5\cdot(N_3^2+1)\cdot(N_1+N_2)\cdot((N_1+N_2)+1)+N_1^2\cdot N_3\cdot((N_1+N_2)-(N_1\cdot N_3))} - R = 0.00000$$

Definitions.

$$R - \frac{N_1\cdot N_3 + N_4\cdot N_5 - AD\cdot N_1\cdot N_3^2 + N_3^2\cdot N_4\cdot N_5 - AD\cdot N_1\cdot N_4\cdot N_5 - AD\cdot N_1\cdot N_3^2\cdot N_4\cdot N_5}{AD\cdot(N_1\cdot N_3 + N_4\cdot N_5 - AD\cdot N_1\cdot N_3^2 + N_3^2\cdot N_4\cdot N_5) + N_1\cdot N_3^2\cdot N_4\cdot N_5 + N_1\cdot N_4\cdot N_5} = 0$$

$$R - \frac{(N_1+N_2)\cdot[N_1\cdot N_3\cdot(N_1+N_2-N_1\cdot N_3) - N_4\cdot N_5\cdot(N_3^2+1)\cdot(N_1^2-N_1-N_2)]}{N_1\cdot N_4\cdot N_5\cdot(N_3^2+1)\cdot(N_1+N_2)\cdot(N_1+N_2+1) + N_1^2\cdot N_3\cdot(N_1+N_2-N_1\cdot N_3)} = 0$$

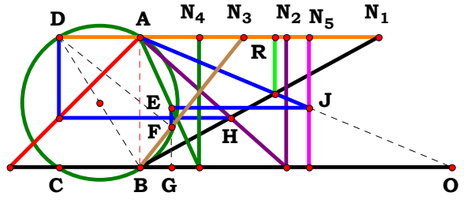
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$

$$R - \frac{(A+B)\cdot[E\cdot D\cdot[C\cdot(A+B) - B\cdot N_u] + (C^2+N_u^2)\cdot[A^2 + B\cdot(A-N_u)]]}{E\cdot B\cdot D\cdot[C\cdot(A+B) - B\cdot N_u] + (C^2+N_u^2)\cdot(A+B)\cdot[A\cdot B + N_u\cdot(A+B)]} = 0$$

$N_1 - \frac{V}{l} = 0$ $N_2 - \frac{W}{m} = 0$ $N_3 - \frac{X}{n} = 0$ $N_4 - \frac{Y}{o} = 0$ $N_5 - \frac{Z}{p} = 0$

$$R - \frac{(V\cdot m + W\cdot l)\cdot[Y\cdot Z\cdot(X^2+n^2)\cdot(m\cdot V\cdot l - m\cdot V^2 + W\cdot l^2) + V\cdot X\cdot o\cdot p\cdot(V\cdot m\cdot n - V\cdot X\cdot m + W\cdot l\cdot n)]}{V\cdot[Y\cdot Z\cdot(X^2+n^2)\cdot(V\cdot m + W\cdot l + l\cdot m)\cdot(V\cdot m + W\cdot l) + V\cdot X\cdot m\cdot o\cdot p\cdot(V\cdot m\cdot n - V\cdot X\cdot m + W\cdot l\cdot n)]} = 0$$

4RST5AB3R3



$N_1 = 1.82802$
$N_2 = 1.12096$
$N_3 = 0.79637$
$N_4 = 0.45500$
$N_5 = 1.29790$
$R = 1.03641$

Unit. $AB := 1$ **Given.** $N_1 := 1.82802$ $N_2 := 1.12096$ $N_3 := .79637$

$N_4 := .45500$ $N_5 := 1.29790$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$

$V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $l := \frac{V}{N_1}$ $m := \frac{W}{N_2}$ $n := \frac{X}{N_3}$ $o := \frac{Y}{N_4}$ $p := \frac{Z}{N_5}$

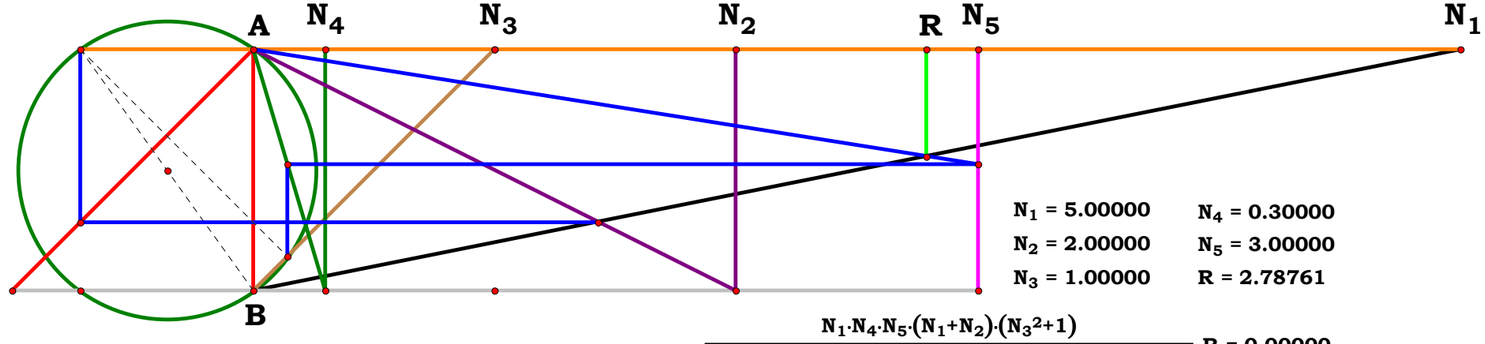
Descriptions.

$$AD := \frac{N_1}{N_1 + N_2} \qquad BN_3 := \sqrt{AB^2 + N_3^2}$$

$$FN_3 := \frac{N_3 \cdot (N_3 + AD)}{BN_3} \qquad BF := BN_3 - FN_3$$

$$BG := \frac{N_3 \cdot BF}{BN_3} \qquad EG := \frac{N_4 - BG}{N_4} \qquad BK := \frac{N_5}{AB - EG}$$

$$R := \frac{BK \cdot N_1}{BK + N_1} \qquad R = 1.036407$$



$N_1 = 5.00000$ $N_4 = 0.30000$
$N_2 = 2.00000$ $N_5 = 3.00000$
$N_3 = 1.00000$ $R = 2.78761$

$$\frac{N_1 \cdot N_4 \cdot N_5 \cdot (N_1 + N_2) \cdot (N_3^2 + 1)}{N_4 \cdot N_5 \cdot (N_1 + N_2) \cdot (N_3^2 + 1) + N_1 \cdot N_3 \cdot ((N_1 + N_2) - N_1 \cdot N_3)} - R = 0.00000$$

Definitions.

$$R - \frac{N_1 \cdot N_4 \cdot N_5 \cdot (N_3^2 + 1)}{N_1 \cdot N_3 + N_4 \cdot N_5 - AD \cdot N_1 \cdot N_3^2 + N_3^2 \cdot N_4 \cdot N_5} = 0$$

$$R - \frac{N_1 \cdot N_4 \cdot N_5 \cdot (N_3^2 + 1) \cdot (N_1 + N_2)}{N_4 \cdot N_5 \cdot (N_3^2 + 1) \cdot (N_1 + N_2) + N_1 \cdot N_3 \cdot (N_1 + N_2 - N_1 \cdot N_3)} = 0$$

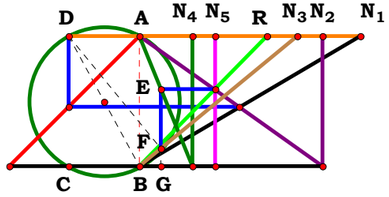
$$N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0 \quad N_4 - \frac{N_u}{D} = 0 \quad N_5 - \frac{N_u}{E} = 0$$

$$R - \frac{N_u \cdot (C^2 + N_u^2) \cdot (A + B)}{E \cdot D \cdot [C \cdot (A + B) - B \cdot N_u] + A \cdot (C^2 + N_u^2) \cdot (A + B)} = 0$$

$$N_1 - \frac{V}{l} = 0 \quad N_2 - \frac{W}{m} = 0 \quad N_3 - \frac{X}{n} = 0 \quad N_4 - \frac{Y}{o} = 0 \quad N_5 - \frac{Z}{p} = 0$$

$$R - \frac{V \cdot Y \cdot Z \cdot (V \cdot m + W \cdot l) \cdot (X^2 + n^2)}{Y \cdot Z \cdot l \cdot (X^2 + n^2) \cdot (V \cdot m + W \cdot l) + V \cdot X \cdot o \cdot p \cdot (V \cdot m \cdot n - V \cdot X \cdot m + W \cdot l \cdot n)} = 0$$

4RST5AB3R4



$N_1 = 1.69242$
$N_2 = 1.40185$
$N_3 = 1.21286$
$N_4 = 0.40657$
$N_5 = 0.58115$
$R = 0.97899$

Unit. $AB := 1$ **Given.** $N_1 := 1.69242$ $N_2 := 1.40185$ $N_3 := 1.21286$

$N_4 := .40657$ $N_5 := .58115$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$

$V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $l := \frac{V}{N_1}$ $m := \frac{W}{N_2}$ $n := \frac{X}{N_3}$ $o := \frac{Y}{N_4}$ $p := \frac{Z}{N_5}$

Descriptions.

$AD := \frac{N_1}{N_1 + N_2}$ $BN_3 := \sqrt{AB^2 + N_3{}^2}$

$FN_3 := \frac{N_3 \cdot (N_3 + AD)}{BN_3}$ $BF := BN_3 - FN_3$

$BG := \frac{N_3 \cdot BF}{BN_3}$ $EG := \frac{N_4 - BG}{N_4}$

$R := \frac{N_5}{EG}$ $R = 0.979006$

Definitions.

$$R - \frac{N_4 \cdot N_5 \cdot (N_3{}^2 + 1)}{N_4 - N_3 + N_3{}^2 \cdot N_4 + AD \cdot N_3{}^2} = 0$$

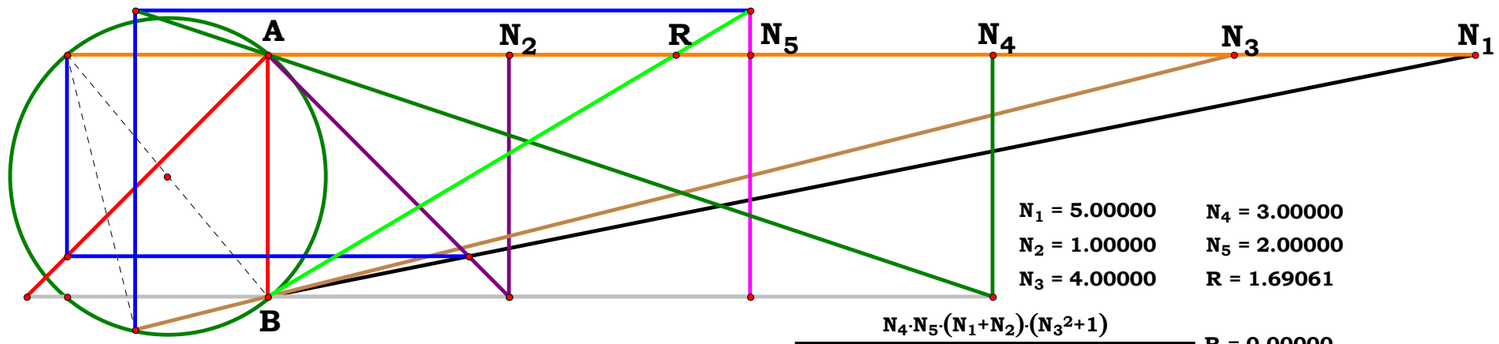
$$R - \frac{N_4 \cdot N_5 \cdot (N_1 + N_2) \cdot (N_3{}^2 + 1)}{(N_3{}^2 + 1) \cdot (N_1 + N_2) \cdot N_4 + N_3 \cdot (N_1 \cdot N_3 - N_2 - N_1)} = 0$$

$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$

$$R - \frac{N_u \cdot (C^2 + N_u{}^2) \cdot (A + B)}{E \cdot [C^2 \cdot (A + B) + N_u{}^2 \cdot (A + B) - D \cdot [C \cdot (A + B) - B \cdot N_u]]} = 0$$

$N_1 - \frac{V}{l} = 0$ $N_2 - \frac{W}{m} = 0$ $N_3 - \frac{X}{n} = 0$ $N_4 - \frac{Y}{o} = 0$ $N_5 - \frac{Z}{p} = 0$

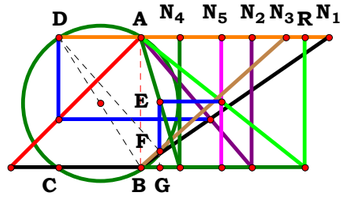
$$R - \frac{N_4 \cdot N_5 \cdot (N_1 + N_2) \cdot (N_3{}^2 + 1)}{(N_3{}^2 + 1) \cdot (N_1 + N_2) \cdot N_4 + N_3 \cdot (N_1 \cdot N_3 - N_2 - N_1)} = 0$$



$N_1 = 5.00000$ $N_4 = 3.00000$
$N_2 = 1.00000$ $N_5 = 2.00000$
$N_3 = 4.00000$ $R = 1.69061$

$$\frac{N_4 \cdot N_5 \cdot (N_1 + N_2) \cdot (N_3{}^2 + 1)}{N_4 \cdot (N_1 + N_2) \cdot (N_3{}^2 + 1) + N_3 \cdot (N_1 \cdot N_3 - N_1 - N_2)} - R = 0.00000$$

4RST5AB3R5



$N_1 = 1.44059$
$N_2 = 0.84976$
$N_3 = 1.11600$
$N_4 = 0.30003$
$N_5 = 0.61989$
$R = 1.25552$

Unit. $AB := 1$ Given. $N_1 := 1.44059$ $N_2 := .84976$ $N_3 := 1.11600$

$N_4 := .30003$ $N_5 := .61989$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$

$V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $l := \frac{V}{N_1}$ $m := \frac{W}{N_2}$ $n := \frac{X}{N_3}$ $o := \frac{Y}{N_4}$ $p := \frac{Z}{N_5}$

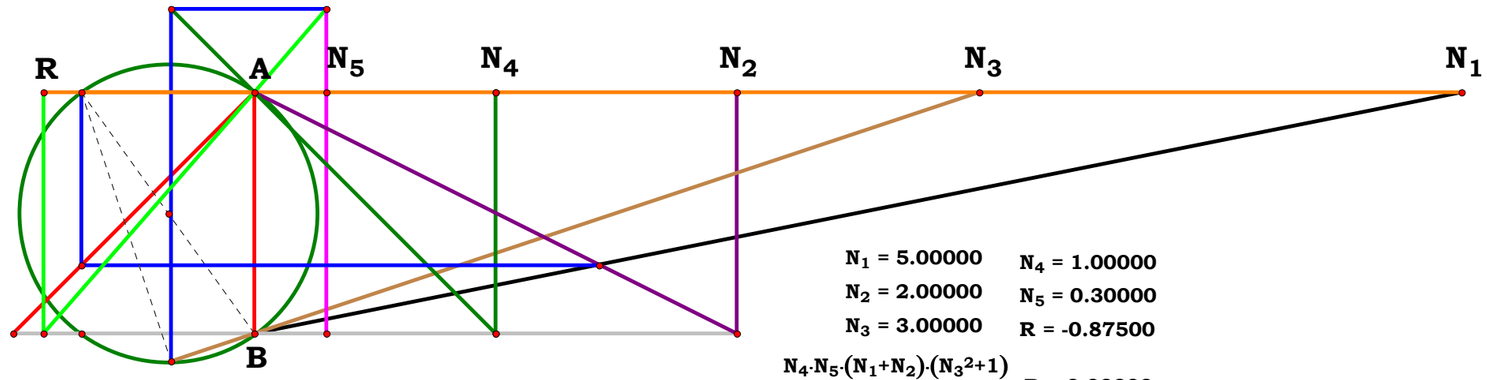
Descriptions.

$$AD := \frac{N_1}{N_1 + N_2} \qquad BN_3 := \sqrt{AB^2 + N_3^2}$$

$$FN_3 := \frac{N_3 \cdot (N_3 + AD)}{BN_3} \qquad BF := BN_3 - FN_3$$

$$BG := \frac{N_3 \cdot BF}{BN_3} \qquad EG := \frac{N_4 - BG}{N_4}$$

$$R := \frac{N_5}{AB - EG} \qquad R = 1.255517$$



$N_1 = 5.00000$ $N_4 = 1.00000$
$N_2 = 2.00000$ $N_5 = 0.30000$
$N_3 = 3.00000$ $R = -0.87500$

$\frac{N_4 \cdot N_5 \cdot (N_1+N_2) \cdot (N_3^2+1)}{N_3 \cdot ((N_1+N_2) - N_1 \cdot N_3)} - R = 0.00000$

Definitions.

$$R - \frac{N_4 \cdot N_5 \cdot (N_3^2 + 1)}{N_3 - AD \cdot N_3^2} = 0$$

$$R - \frac{N_4 \cdot N_5 \cdot (N_1 + N_2) \cdot (N_3^2 + 1)}{N_3 \cdot (N_1 + N_2 - N_1 \cdot N_3)} = 0$$

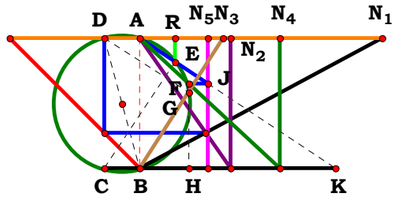
$$N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0 \quad N_4 - \frac{N_u}{D} = 0 \quad N_5 - \frac{N_u}{E} = 0$$

$$R - \frac{N_u \cdot (C^2 + N_u^2) \cdot (A + B)}{D \cdot E \cdot [C \cdot (A + B) - B \cdot N_u]} = 0$$

$$N_1 - \frac{V}{l} = 0 \quad N_2 - \frac{W}{m} = 0 \quad N_3 - \frac{X}{n} = 0 \quad N_4 - \frac{Y}{o} = 0 \quad N_5 - \frac{Z}{p} = 0$$

$$R - \frac{Y \cdot Z \cdot (V \cdot m + W \cdot l) \cdot (X^2 + n^2)}{o \cdot p \cdot (V \cdot X \cdot m \cdot n - V \cdot X^2 \cdot m + W \cdot X \cdot l \cdot n)} = 0$$

4RST5AB4R0



$N_1 = 1.85708$
$N_2 = 0.69478$
$N_3 = 0.64140$
$N_4 = 1.07489$
$N_5 = 0.52303$
$R = 0.27327$

Unit. $AB := 1$ Given. $N_1 := 1.85708$ $N_2 := .69478$ $N_3 := .64140$

$N_4 := 1.07489$ $N_5 := .52303$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$

$V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $l := \frac{V}{N_1}$ $m := \frac{W}{N_2}$ $n := \frac{X}{N_3}$ $o := \frac{Y}{N_4}$ $p := \frac{Z}{N_5}$

Descriptions.

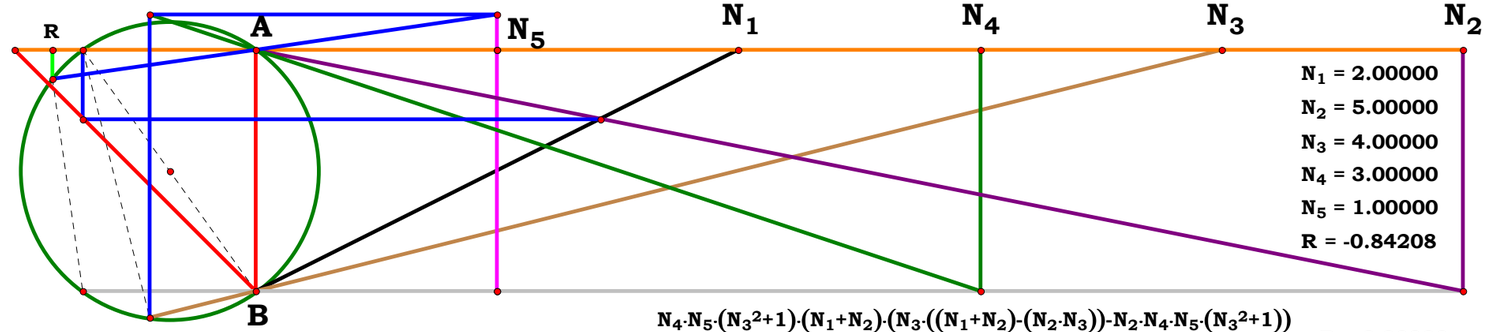
$$AD := \frac{N_2}{N_1 + N_2} \qquad BN_3 := \sqrt{AB^2 + N_3^2} \qquad GN_3 := \frac{N_3 \cdot (N_3 + AD)}{BN_3}$$

$$BG := BN_3 - GN_3 \qquad BH := \frac{N_3 \cdot BG}{BN_3}$$

$$FH := \frac{N_4 - BH}{N_4} \qquad BK := \frac{N_5}{AB - FH}$$

$$AK := \sqrt{AB^2 + BK^2} \qquad EK := \frac{BK \cdot (BK + AD)}{AK}$$

$$AE := AK - EK \qquad R := \frac{BK \cdot AE}{AK} \qquad R = 0.273271$$



$N_1 = 2.00000$
$N_2 = 5.00000$
$N_3 = 4.00000$
$N_4 = 3.00000$
$N_5 = 1.00000$
$R = -0.84208$

$$\frac{N_4 \cdot N_5 \cdot (N_3^2+1) \cdot (N_1+N_2) \cdot (N_3 \cdot ((N_1+N_2)-(N_2 \cdot N_3)) - N_2 \cdot N_4 \cdot N_5 \cdot (N_3^2+1))}{(N_4 \cdot N_5 \cdot (N_1+N_2) \cdot (N_3^2+1))^2 + N_3^2 \cdot ((N_1+N_2)-(N_2 \cdot N_3))^2} - R = 0.00000$$

Definitions.

$$R - \frac{N_4 \cdot N_5 \cdot \left(N_3^2 + 1\right) \cdot \left(N_3 - AD \cdot N_3^2 - AD \cdot N_4 \cdot N_5 - AD \cdot N_3^2 \cdot N_4 \cdot N_5\right)}{AD^2 \cdot N_3^4 - 2 \cdot AD \cdot N_3^3 + N_3^4 \cdot N_4^2 \cdot N_5^2 + 2 \cdot N_3^2 \cdot N_4^2 \cdot N_5^2 + N_3^2 + N_4^2 \cdot N_5^2} = 0$$

$$R - \frac{N_4 \cdot N_5 \cdot \left(N_3^2 + 1\right) \cdot \left(N_1 + N_2\right) \cdot \left[N_3 \cdot \left(N_1 + N_2 - N_2 \cdot N_3\right) - N_2 \cdot N_4 \cdot N_5 \cdot \left(N_3^2 + 1\right)\right]}{N_4^2 \cdot N_5^2 \cdot \left(N_1 + N_2\right)^2 \cdot \left(N_3^2 + 1\right)^2 + N_3^2 \cdot \left(N_1 + N_2 - N_2 \cdot N_3\right)^2} = 0$$

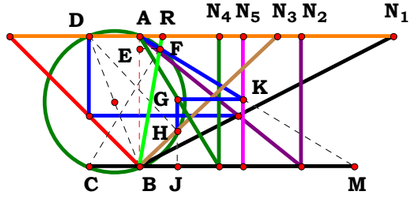
$$N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0 \quad N_4 - \frac{N_u}{D} = 0 \quad N_5 - \frac{N_u}{E} = 0$$

$$R - \frac{N_u \cdot \left(C^2 + N_u^2\right) \cdot (A + B) \cdot \left[E \cdot D \cdot \left[C \cdot (A + B) - A \cdot N_u\right] - \left[A \cdot N_u \cdot \left(C^2 + N_u^2\right)\right]\right]}{E^2 \cdot D^2 \cdot \left[C \cdot (A + B) - A \cdot N_u\right]^2 + N_u^2 \cdot \left(C^2 + N_u^2\right)^2 \cdot (A + B)^2} = 0$$

$$N_1 - \frac{V}{l} = 0 \quad N_2 - \frac{W}{m} = 0 \quad N_3 - \frac{X}{n} = 0 \quad N_4 - \frac{Y}{o} = 0 \quad N_5 - \frac{Z}{p} = 0$$

$$R - \frac{Y \cdot Z \cdot (V \cdot m + W \cdot l) \cdot \left(X^2 + n^2\right) \cdot \left[X \cdot o \cdot p \cdot (V \cdot m \cdot n - W \cdot X \cdot l + W \cdot l \cdot n) - W \cdot Y \cdot Z \cdot l \cdot \left(X^2 + n^2\right)\right]}{Y^2 \cdot Z^2 \cdot \left(X^2 + n^2\right)^2 \cdot (V \cdot m + W \cdot l)^2 + X^2 \cdot o^2 \cdot p^2 \cdot (V \cdot m \cdot n - W \cdot X \cdot l + W \cdot l \cdot n)^2} = 0$$

4RST5AB4R1



$N_1 = 1.94425$
$N_2 = 1.23719$
$N_3 = 1.05789$
$N_4 = 0.60998$
$N_5 = 0.79423$
$R = 0.17611$

Unit. $AB := 1$ Given. $N_1 := 1.94425$ $N_2 := 1.23719$ $N_3 := 1.05789$

$N_4 := .60998$ $N_5 := .79423$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$

$V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $l := \frac{V}{N_1}$ $m := \frac{W}{N_2}$ $n := \frac{X}{N_3}$ $o := \frac{Y}{N_4}$ $p := \frac{Z}{N_5}$

Descriptions.

$AD := \frac{N_2}{N_1 + N_2}$ $BN_3 := \sqrt{AB^2 + N_3^2}$ $HN_3 := \frac{N_3 \cdot (N_3 + AD)}{BN_3}$

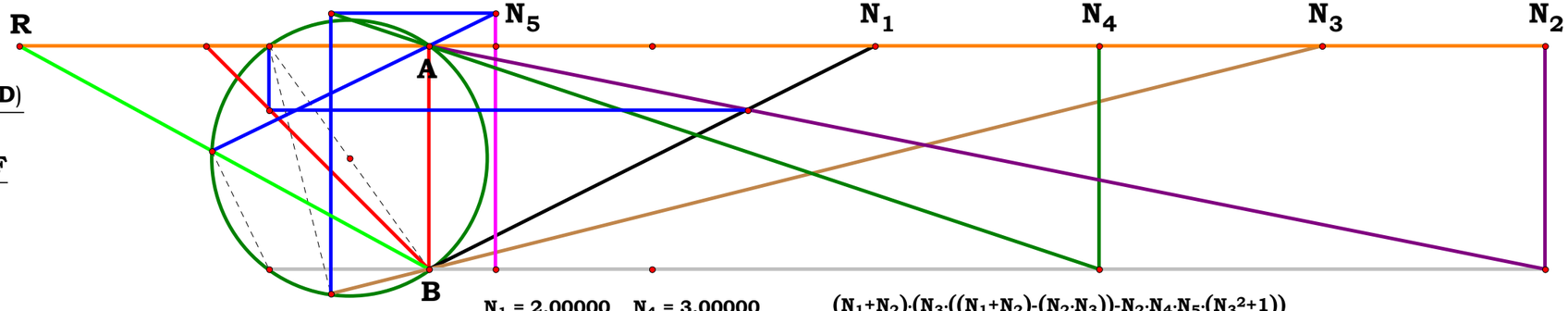
$BH := BN_3 - HN_3$ $BJ := \frac{N_3 \cdot BH}{BN_3}$

$HJ := \frac{N_4 - BJ}{N_4}$ $BM := \frac{N_5}{AB - HJ}$

$AM := \sqrt{AB^2 + BM^2}$ $FM := \frac{BM \cdot (BM + AD)}{AM}$

$AF := AM - FM$ $AE := \frac{AF}{AM}$ $EF := \frac{BM \cdot AF}{AM}$

$R := \frac{EF}{AB - AE}$ $R = 0.17611$



$N_1 = 2.00000$ $N_4 = 3.00000$

$N_2 = 5.00000$ $N_5 = 0.30000$

$N_3 = 4.00000$ $R = -1.83684$

$\frac{(N_1+N_2)\cdot(N_3\cdot((N_1+N_2)-(N_2\cdot N_3))-N_2\cdot N_4\cdot N_5\cdot(N_3^2+1))}{N_4\cdot N_5\cdot(N_1+N_2)^2\cdot(N_3^2+1)+N_2\cdot N_3\cdot((N_1+N_2)-(N_2\cdot N_3))} - R = 0.00000$

Definitions.

$$R - \frac{AD \cdot N_3^2 - N_3 + AD \cdot N_4 \cdot N_5 + AD \cdot N_3^2 \cdot N_4 \cdot N_5}{AD^2 \cdot N_3^2 - AD \cdot N_3 - N_4 \cdot N_5 \cdot N_3^2 - N_4 \cdot N_5} = 0$$

$$R - \frac{(N_1 + N_2) \cdot \left[N_3 \cdot (N_1 + N_2 - N_2 \cdot N_3) - N_2 \cdot N_4 \cdot N_5 \cdot (N_3^2 + 1)\right]}{N_4 \cdot N_5 \cdot (N_1 + N_2)^2 \cdot (N_3^2 + 1) + N_2 \cdot N_3 \cdot (N_1 + N_2 - N_2 \cdot N_3)} = 0$$

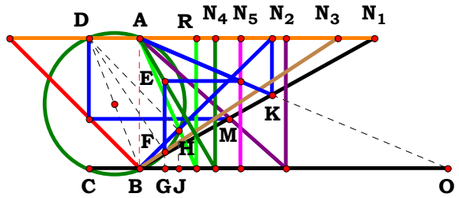
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$

$$R - \frac{(A + B) \cdot \left[E \cdot D \cdot \left[C \cdot (A + B) - A \cdot N_u\right] - \left[A \cdot N_u \cdot (C^2 + N_u^2)\right]\right]}{E \cdot A \cdot D \cdot \left[C \cdot (A + B) - A \cdot N_u\right] + N_u \cdot (C^2 + N_u^2) \cdot (A + B)^2} = 0$$

$N_1 - \frac{V}{l} = 0$ $N_2 - \frac{W}{m} = 0$ $N_3 - \frac{X}{n} = 0$ $N_4 - \frac{Y}{o} = 0$ $N_5 - \frac{Z}{p} = 0$

$$R - \frac{(V \cdot m + W \cdot l) \cdot \left[X \cdot o \cdot p \cdot (V \cdot m \cdot n - W \cdot X \cdot l + W \cdot l \cdot n) - W \cdot Y \cdot Z \cdot l \cdot (X^2 + n^2)\right]}{Y \cdot Z \cdot (X^2 + n^2) \cdot (V \cdot m + W \cdot l)^2 + W \cdot X \cdot l \cdot o \cdot p \cdot (V \cdot m \cdot n - W \cdot X \cdot l + W \cdot l \cdot n)} = 0$$

4RST5AB4R2



$N_1 = 1.79896$
$N_2 = 1.12096$
$N_3 = 1.52280$
$N_4 = 0.58092$
$N_5 = 0.77486$
$R = 0.43271$

Unit. $AB := 1$ Given. $N_1 := 1.79896$ $N_2 := 1.12096$ $N_3 := 1.52280$

$N_4 := .58092$ $N_5 := .77486$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$

$V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $l := \frac{V}{N_1}$ $m := \frac{W}{N_2}$ $n := \frac{X}{N_3}$ $o := \frac{Y}{N_4}$ $p := \frac{Z}{N_5}$

Descriptions.

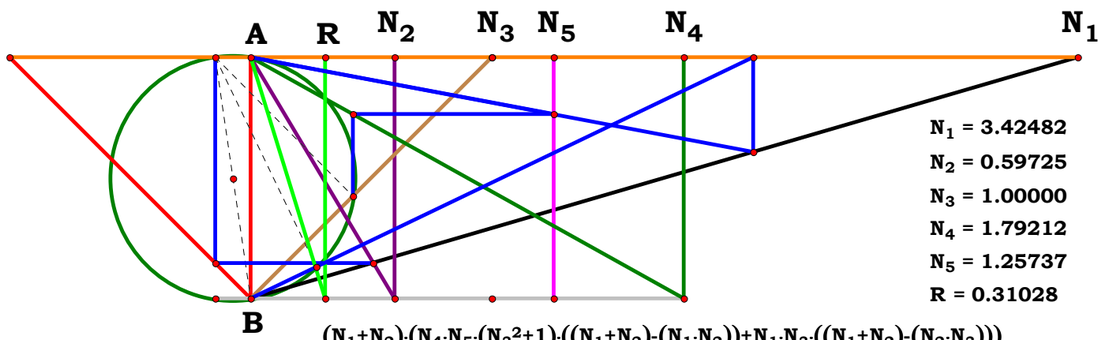
$AD := \frac{N_2}{N_1 + N_2}$ $BN_3 := \sqrt{AB^2 + N_3^2}$ $FN_3 := \frac{N_3 \cdot (N_3 + AD)}{BN_3}$

$BF := BN_3 - FN_3$ $BG := \frac{N_3 \cdot BF}{BN_3}$ $EG := \frac{N_4 - BG}{N_4}$

$BO := \frac{N_5}{AB - EG}$ $AK := \frac{BO \cdot N_1}{BO + N_1}$ $BK := \sqrt{AB^2 + AK^2}$

$HK := \frac{AK \cdot (AK + AD)}{BK}$ $BH := BK - HK$ $BJ := \frac{AK \cdot BH}{BK}$

$HJ := \frac{BJ}{AK}$ $R := \frac{BJ}{AB - HJ}$ $R = 0.432714$



$N_1 = 3.42482$
$N_2 = 0.59725$
$N_3 = 1.00000$
$N_4 = 1.79212$
$N_5 = 1.25737$
$R = 0.31028$

$$\frac{(N_1+N_2)\cdot(N_4\cdot N_5\cdot(N_3^2+1)\cdot((N_1+N_2)-(N_1\cdot N_2))+N_1\cdot N_3\cdot((N_1+N_2)-(N_2\cdot N_3)))}{N_4\cdot N_5\cdot(N_1+N_2)\cdot(N_3^2+1)\cdot(N_1^2+(N_1\cdot N_2)+N_2)+N_1\cdot N_2\cdot N_3\cdot((N_1+N_2)-(N_2\cdot N_3))} - R = 0.00000$$

Definitions.

$$R - \frac{N_1\cdot N_3 + N_4\cdot N_5 - AD\cdot N_1\cdot N_3^2 + N_3^2\cdot N_4\cdot N_5 - AD\cdot N_1\cdot N_4\cdot N_5 - AD\cdot N_1\cdot N_3^2\cdot N_4\cdot N_5}{AD\cdot N_3^2\cdot N_4\cdot N_5 - AD^2\cdot N_1\cdot N_3^2 + AD\cdot N_1\cdot N_3 + AD\cdot N_4\cdot N_5 + N_1\cdot N_3^2\cdot N_4\cdot N_5 + N_1\cdot N_4\cdot N_5} = 0$$

$$R - \frac{(N_1+N_2)\cdot\left[N_4\cdot(N_3^2+1)\cdot(N_1+N_2-N_1\cdot N_2)\cdot N_5 + N_1\cdot N_3\cdot(N_1+N_2-N_2\cdot N_3)\right]}{N_4\cdot N_5\cdot(N_1+N_2)\cdot(N_3^2+1)\cdot(N_1^2+N_1\cdot N_2+N_2) + N_1\cdot N_2\cdot N_3\cdot(N_1+N_2-N_2\cdot N_3)} = 0$$

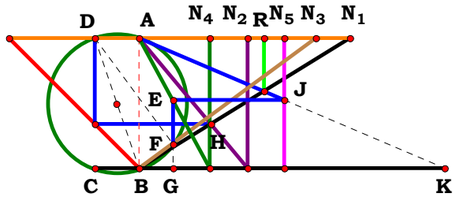
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$

$$R - \frac{(A+B)\cdot\left[E\cdot D\cdot\left[C\cdot(A+B) - A\cdot N_u\right] + A\cdot(C^2+N_u^2)\cdot(A+B-N_u)\right]}{E\cdot A\cdot D\cdot\left[C\cdot(A+B) - A\cdot N_u\right] + (A+B)\cdot\left[A^2 + N_u\cdot(A+B)\right]\cdot(C^2+N_u^2)} = 0$$

$N_1 - \frac{V}{l} = 0$ $N_2 - \frac{W}{m} = 0$ $N_3 - \frac{X}{n} = 0$ $N_4 - \frac{Y}{o} = 0$ $N_5 - \frac{Z}{p} = 0$

$$R - \frac{(V\cdot m + W\cdot l)\cdot\left[Y\cdot Z\cdot l\cdot(X^2+n^2)\cdot(V\cdot m - V\cdot W + W\cdot l) + V\cdot X\cdot o\cdot p\cdot(V\cdot m\cdot n - W\cdot X\cdot l + W\cdot l\cdot n)\right]}{Y\cdot Z\cdot(m\cdot V^2 + W\cdot V\cdot l + W\cdot l^2)\cdot(V\cdot m + W\cdot l)\cdot(X^2+n^2) + V\cdot W\cdot X\cdot l\cdot o\cdot p\cdot(V\cdot m\cdot n - W\cdot X\cdot l + W\cdot l\cdot n)} = 0$$

4RST5AB4R3



$N_1 = 1.61493$
$N_2 = 0.83038$
$N_3 = 1.35815$
$N_4 = 0.54218$
$N_5 = 1.11387$
$R = 0.95676$

Unit. $AB := 1$ Given. $N_1 := 1.61493$ $N_2 := .83038$ $N_3 := 1.35815$

$N_4 := .54218$ $N_5 := 1.11387$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$

$V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $l := \frac{V}{N_1}$ $m := \frac{W}{N_2}$ $n := \frac{X}{N_3}$ $o := \frac{Y}{N_4}$ $p := \frac{Z}{N_5}$

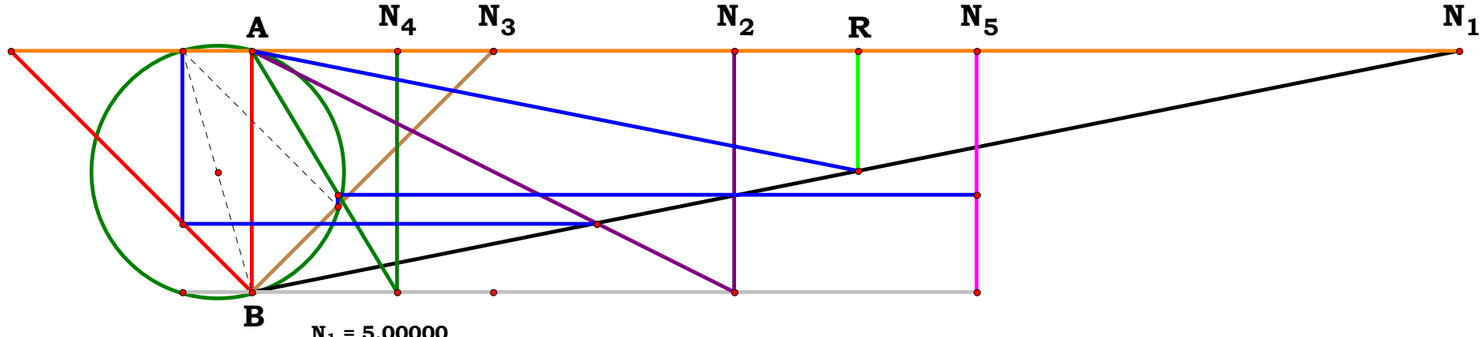
Descriptions.

$AD := \frac{N_2}{N_1 + N_2}$ $BN_3 := \sqrt{AB^2 + N_3^2}$

$FN_3 := \frac{N_3 \cdot (N_3 + AD)}{BN_3}$ $BF := BN_3 - FN_3$

$BG := \frac{N_3 \cdot BF}{BN_3}$ $EG := \frac{N_4 - BG}{N_4}$

$BK := \frac{N_5}{AB - EG}$ $R := \frac{BK \cdot N_1}{BK + N_1}$ $R = 0.956762$



$N_1 = 5.00000$
$N_2 = 2.00000$
$N_3 = 1.00000$
$N_4 = 0.60000$
$N_5 = 3.00000$
$R = 2.50996$

$$\frac{N_1 \cdot N_4 \cdot N_5 \cdot (N_1+N_2) \cdot (N_3^2+1)}{N_4 \cdot N_5 \cdot (N_3^2+1) \cdot (N_1+N_2) + N_1 \cdot N_3 \cdot ((N_1+N_2) - N_2 \cdot N_3)} - R = 0.00000$$

Definitions.

$$R - \frac{N_1 \cdot N_4 \cdot N_5 \cdot (N_3^2 + 1)}{N_1 \cdot N_3 + N_4 \cdot N_5 - AD \cdot N_1 \cdot N_3^2 + N_3^2 \cdot N_4 \cdot N_5} = 0$$

$$R - \frac{N_1 \cdot N_4 \cdot N_5 \cdot (N_1 + N_2) \cdot (N_3^2 + 1)}{N_4 \cdot N_5 \cdot (N_3^2 + 1) \cdot (N_1 + N_2) + N_1 \cdot N_3 \cdot (N_1 + N_2 - N_2 \cdot N_3)} = 0$$

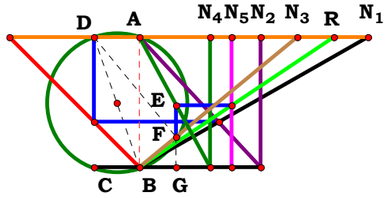
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$

$$R - \frac{N_u \cdot (C^2 + N_u^2) \cdot (A + B)}{E \cdot D \cdot [C \cdot (A + B) - A \cdot N_u] + A \cdot (C^2 + N_u^2) \cdot (A + B)} = 0$$

$N_1 - \frac{V}{l} = 0$ $N_2 - \frac{W}{m} = 0$ $N_3 - \frac{X}{n} = 0$ $N_4 - \frac{Y}{o} = 0$ $N_5 - \frac{Z}{p} = 0$

$$R - \frac{V \cdot Y \cdot Z \cdot (V \cdot m + W \cdot l) \cdot (X^2 + n^2)}{Y \cdot Z \cdot l \cdot (X^2 + n^2) \cdot (V \cdot m + W \cdot l) + V \cdot X \cdot o \cdot p \cdot (V \cdot m \cdot n - W \cdot X \cdot l + W \cdot l \cdot n)} = 0$$

4RST5AB4R4



$N_1 = 1.75053$
$N_2 = 0.92724$
$N_3 = 1.21286$
$N_4 = 0.54218$
$N_5 = 0.70706$
$R = 1.48884$

Descriptions.

$$AD := \frac{N_2}{N_1 + N_2} \qquad BN_3 := \sqrt{AB^2 + N_3{}^2} \qquad FN_3 := \frac{N_3 \cdot (N_3 + AD)}{BN_3}$$

$$BF := BN_3 - FN_3 \qquad BG := \frac{N_3 \cdot BF}{BN_3}$$

$$EG := \frac{N_4 - BG}{N_4} \qquad R := \frac{N_5}{EG} \qquad R = 1.489541$$

Definitions.

$$R - \frac{N_4 \cdot N_5 \cdot (N_3{}^2 + 1)}{N_4 - N_3 + N_3{}^2 \cdot N_4 + AD \cdot N_3{}^2} = 0$$

$$R - \frac{N_4 \cdot N_5 \cdot (N_1 + N_2) \cdot (N_3{}^2 + 1)}{(N_3{}^2 + 1) \cdot (N_1 + N_2) \cdot N_4 - N_3 \cdot (N_1 + N_2 - N_2 \cdot N_3)} = 0$$

$$N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0 \quad N_4 - \frac{N_u}{D} = 0 \quad N_5 - \frac{N_u}{E} = 0$$

$$R - \frac{N_u \cdot (C^2 + N_u{}^2) \cdot (A + B)}{E \cdot [C^2 \cdot (A + B) + N_u{}^2 \cdot (A + B) - D \cdot [C \cdot (A + B) - A \cdot N_u]]} = 0$$

$$N_1 - \frac{V}{l} = 0 \quad N_2 - \frac{W}{m} = 0 \quad N_3 - \frac{X}{n} = 0 \quad N_4 - \frac{Y}{o} = 0 \quad N_5 - \frac{Z}{p} = 0$$

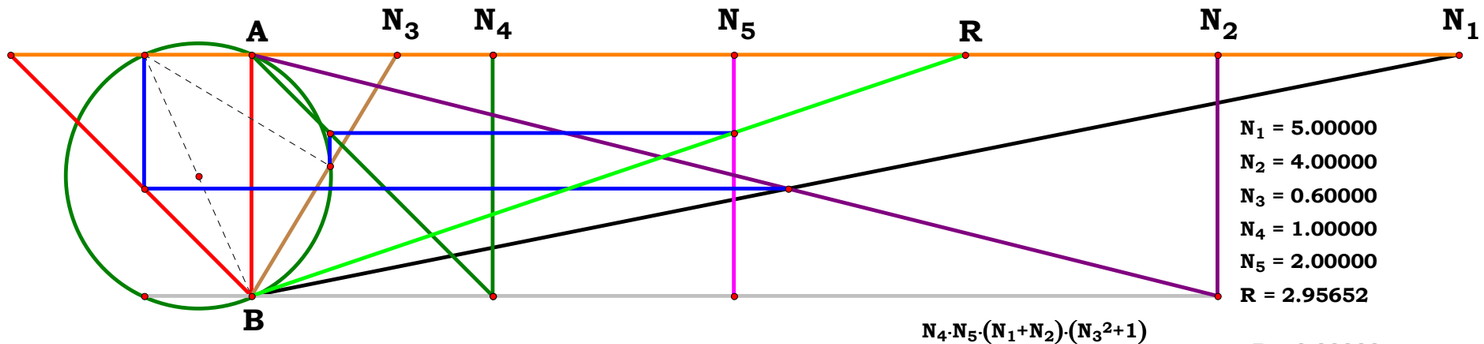
$$R - \frac{Y \cdot Z \cdot (V \cdot m + W \cdot l) \cdot (X^2 + n^2)}{p \cdot [Y \cdot (X^2 + n^2) \cdot (V \cdot m + W \cdot l) + X \cdot o \cdot (W \cdot X \cdot l - V \cdot m \cdot n - W \cdot l \cdot n)]} = 0$$

Unit. $AB := 1$ **Given.** $N_1 := 1.75053$ $N_2 := .92724$ $N_3 := 1.21228$

$N_4 := .54218$ $N_5 := .70706$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$

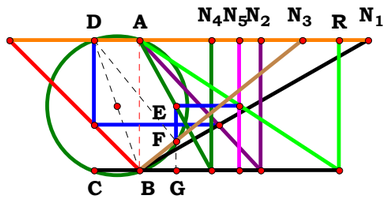
$V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $l := \frac{V}{N_1}$ $m := \frac{W}{N_2}$ $n := \frac{X}{N_3}$ $o := \frac{Y}{N_4}$ $p := \frac{Z}{N_5}$



$N_1 = 5.00000$
$N_2 = 4.00000$
$N_3 = 0.60000$
$N_4 = 1.00000$
$N_5 = 2.00000$
$R = 2.95652$

$$\frac{N_4 \cdot N_5 \cdot (N_1 + N_2) \cdot (N_3{}^2 + 1)}{N_4 \cdot (N_3{}^2 + 1) \cdot (N_1 + N_2) - N_3 \cdot ((N_1 + N_2) - N_2 \cdot N_3)} - R = 0.00000$$

4RST5AB4R5



$N_1 = 1.75053$
$N_2 = 0.92724$
$N_3 = 1.25160$
$N_4 = 0.55186$
$N_5 = 0.76518$
$R = 1.52823$

Unit. $AB := 1$ Given. $N_1 := 1.75053$ $N_2 := .92724$ $N_3 := 1.25160$

$N_4 := .55186$ $N_5 := .76518$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$

$V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $l := \frac{V}{N_1}$ $m := \frac{W}{N_2}$ $n := \frac{X}{N_3}$ $o := \frac{Y}{N_4}$ $p := \frac{Z}{N_5}$

Descriptions.

$$AD := \frac{N_2}{N_1 + N_2} \qquad BN_3 := \sqrt{AB^2 + N_3{}^2}$$

$$FN_3 := \frac{N_3 \cdot (N_3 + AD)}{BN_3} \qquad BF := BN_3 - FN_3$$

$$BG := \frac{N_3 \cdot BF}{BN_3} \qquad EG := \frac{N_4 - BG}{N_4}$$

$$R := \frac{N_5}{AB - EG} \qquad R = 1.52823$$

Definitions.

$$R - \frac{N_4 \cdot N_5 \cdot (N_3{}^2 + 1)}{N_3 - AD \cdot N_3{}^2} = 0$$

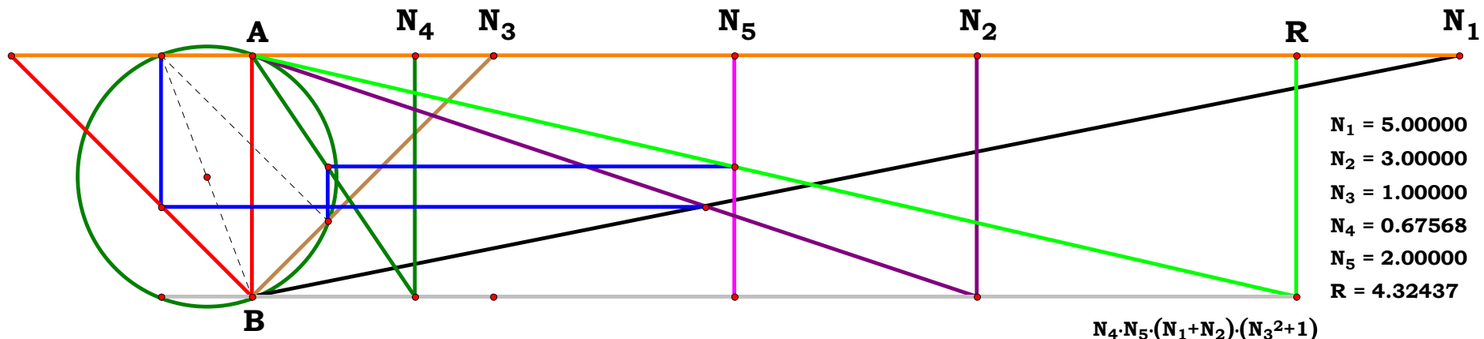
$$R - \frac{N_4 \cdot N_5 \cdot (N_1 + N_2) \cdot (N_3{}^2 + 1)}{N_3 \cdot (N_1 + N_2 - N_2 \cdot N_3)} = 0$$

$$N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0 \quad N_4 - \frac{N_u}{D} = 0 \quad N_5 - \frac{N_u}{E} = 0$$

$$R - \frac{N_u \cdot (C^2 + N_u{}^2) \cdot (A + B)}{D \cdot E \cdot [C \cdot (A + B) - A \cdot N_u]} = 0$$

$$N_1 - \frac{V}{l} = 0 \quad N_2 - \frac{W}{m} = 0 \quad N_3 - \frac{X}{n} = 0 \quad N_4 - \frac{Y}{o} = 0 \quad N_5 - \frac{Z}{p} = 0$$

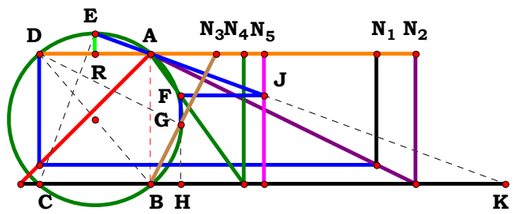
$$R - \frac{Y \cdot Z \cdot (V \cdot m + W \cdot l) \cdot (X^2 + n^2)}{o \cdot p \cdot (V \cdot X \cdot m \cdot n - W \cdot X^2 \cdot l + W \cdot X \cdot l \cdot n)} = 0$$



$N_1 = 5.00000$
$N_2 = 3.00000$
$N_3 = 1.00000$
$N_4 = 0.67568$
$N_5 = 2.00000$
$R = 4.32437$

$\frac{N_4 \cdot N_5 \cdot (N_1+N_2) \cdot (N_3{}^2+1)}{N_3 \cdot ((N_1+N_2)-N_2 \cdot N_3)} - R = 0.00000$

4RST5AB5R0



$N_1 = 1.73116$
$N_2 = 2.03142$
$N_3 = 0.50580$
$N_4 = 0.71652$
$N_5 = 0.87172$
$R = -0.42774$

Unit. $AB := 1$ **Given.** $N_1 := 1.73116$ $N_2 := 2.03142$ $N_3 := .50580$

$N_4 := .71652$ $N_5 := .87172$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$

$V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $l := \frac{V}{N_1}$ $m := \frac{W}{N_2}$ $n := \frac{X}{N_3}$ $o := \frac{Y}{N_4}$ $p := \frac{Z}{N_5}$

Descriptions.

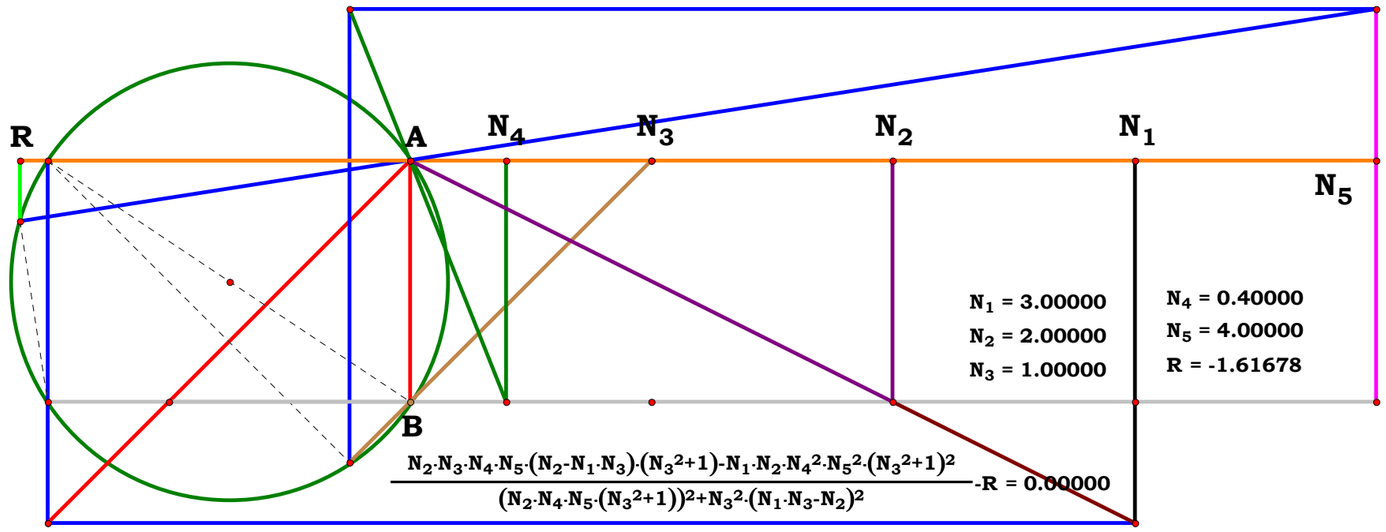
$AD := \frac{N_1}{N_2}$ $BN_3 := \sqrt{AB^2 + N_3^2}$ $GN_3 := \frac{N_3 \cdot (N_3 + AD)}{BN_3}$

$BG := BN_3 - GN_3$ $BH := \frac{N_3 \cdot BG}{BN_3}$ $FH := \frac{N_4 - BH}{N_4}$

$BK := \frac{N_5}{AB - FH}$ $AK := \sqrt{AB^2 + BK^2}$ $EK := \frac{BK \cdot (BK + AD)}{AK}$

$AE := AK - EK$ $R := \frac{BK \cdot AE}{AK}$ $R = -0.427738$

Definitions.



$$R - \frac{N_4 \cdot N_5 \cdot (N_3^2 + 1) \cdot (N_3 - AD \cdot N_3^2 - AD \cdot N_4 \cdot N_5 - AD \cdot N_3^2 \cdot N_4 \cdot N_5)}{AD^2 \cdot N_3^4 - 2 \cdot AD \cdot N_3^3 + N_3^4 \cdot N_4^2 \cdot N_5^2 + 2 \cdot N_3^2 \cdot N_4^2 \cdot N_5^2 + N_3^2 + N_4^2 \cdot N_5^2} = 0$$

$$R - \frac{N_2 \cdot N_3 \cdot N_4 \cdot N_5 \cdot (N_2 - N_1 \cdot N_3) \cdot (N_3^2 + 1) - N_1 \cdot N_2 \cdot N_4^2 \cdot N_5^2 \cdot (N_3^2 + 1)^2}{N_2^2 \cdot N_4^2 \cdot N_5^2 \cdot (N_3^2 + 1)^2 + N_3^2 \cdot (N_1 \cdot N_3 - N_2)^2} = 0$$

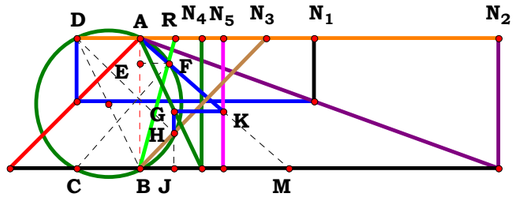
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$

$$R - \frac{A \cdot N_u \cdot (C^2 + N_u^2) \cdot [E \cdot D \cdot (A \cdot C - B \cdot N_u) - [B \cdot N_u \cdot (C^2 + N_u^2)]]}{E^2 \cdot D^2 \cdot (A \cdot C - B \cdot N_u)^2 + A^2 \cdot N_u^2 \cdot (C^2 + N_u^2)^2} = 0$$

$N_1 - \frac{V}{l} = 0$ $N_2 - \frac{W}{m} = 0$ $N_3 - \frac{X}{n} = 0$ $N_4 - \frac{Y}{o} = 0$ $N_5 - \frac{Z}{p} = 0$

$$R - \frac{W \cdot Y \cdot Z \cdot l \cdot (X^2 + n^2) \cdot [X \cdot o \cdot p \cdot (W \cdot l \cdot n - V \cdot X \cdot m) - V \cdot Y \cdot Z \cdot m \cdot (X^2 + n^2)]}{Y^2 \cdot W^2 \cdot Z^2 \cdot l^2 \cdot (X^2 + n^2)^2 + X^2 \cdot o^2 \cdot p^2 \cdot (V \cdot X \cdot m - W \cdot l \cdot n)^2} = 0$$

4RST5AB5R1



$N_1 = 1.33405$
$N_2 = 2.74817$
$N_3 = 0.97071$
$N_4 = 0.47437$
$N_5 = 0.63926$
$R = 0.27129$

Unit. $AB := 1$ Given. $N_1 := 1.33405$ $N_2 := 2.74817$ $N_3 := .97071$

$N_4 := .47437$ $N_5 := .63926$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$

$V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $l := \frac{V}{N_1}$ $m := \frac{W}{N_2}$ $n := \frac{X}{N_3}$ $o := \frac{Y}{N_4}$ $p := \frac{Z}{N_5}$

Descriptions.

$AD := \frac{N_1}{N_2}$ $BN_3 := \sqrt{AB^2 + N_3^2}$ $HN_3 := \frac{N_3 \cdot (N_3 + AD)}{BN_3}$ $BH := BN_3 - HN_3$

$BJ := \frac{N_3 \cdot BH}{BN_3}$ $HJ := \frac{N_4 - BJ}{N_4}$ $BM := \frac{N_5}{AB - HJ}$

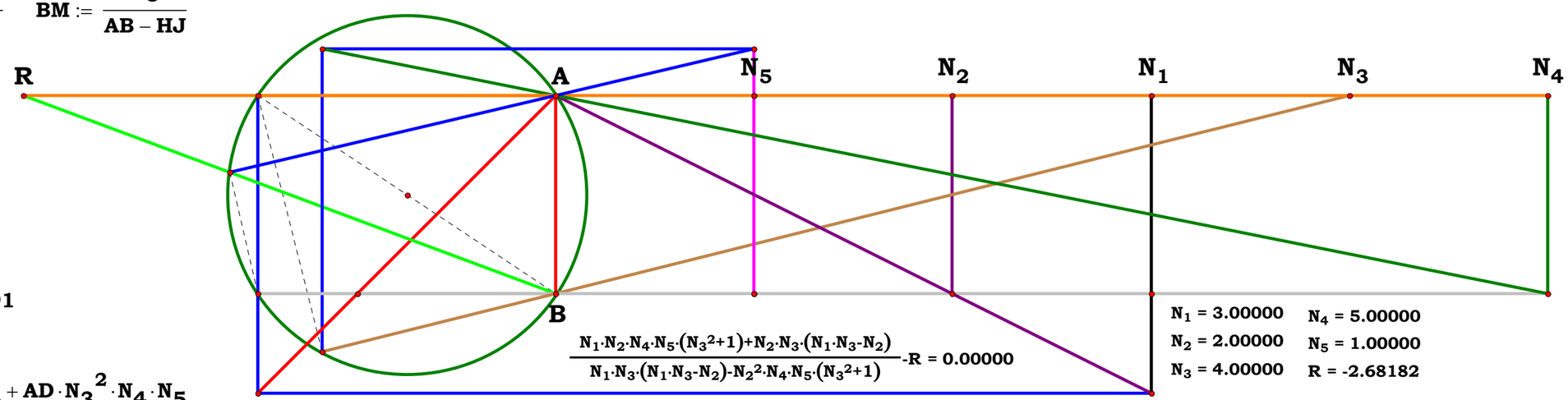
$AM := \sqrt{AB^2 + BM^2}$

$FM := \frac{BM \cdot (BM + AD)}{AM}$

$AF := AM - FM$

$AE := \frac{AF}{AM}$ $EF := \frac{BM \cdot AF}{AM}$

$R := \frac{EF}{AB - AE}$ $R = 0.271291$



Definitions.

$$R - \frac{AD \cdot N_3^2 - N_3 + AD \cdot N_4 \cdot N_5 + AD \cdot N_3^2 \cdot N_4 \cdot N_5}{AD^2 \cdot N_3^2 - AD \cdot N_3 - N_4 \cdot N_5 \cdot N_3^2 - N_4 \cdot N_5} = 0$$

$$R - \frac{N_1 \cdot N_2 \cdot N_4 \cdot N_5 \cdot (N_3^2 + 1) + N_2 \cdot N_3 \cdot (N_1 \cdot N_3 - N_2)}{N_1 \cdot N_3 \cdot (N_1 \cdot N_3 - N_2) - N_2^2 \cdot N_4 \cdot N_5 \cdot (N_3^2 + 1)} = 0$$

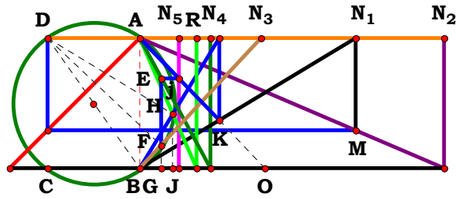
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$

$$R - \frac{A \cdot \left[E \cdot D \cdot (A \cdot C - B \cdot N_u) - \left[B \cdot N_u \cdot (C^2 + N_u^2)\right]\right]}{E \cdot B \cdot D \cdot (A \cdot C - B \cdot N_u) + A^2 \cdot N_u \cdot (C^2 + N_u^2)} = 0$$

$N_1 - \frac{V}{l} = 0$ $N_2 - \frac{W}{m} = 0$ $N_3 - \frac{X}{n} = 0$ $N_4 - \frac{Y}{o} = 0$ $N_5 - \frac{Z}{p} = 0$

$$R - \frac{W \cdot l \cdot \left[Y \cdot V \cdot Z \cdot m \cdot (X^2 + n^2) + X \cdot o \cdot p \cdot (V \cdot X \cdot m - W \cdot l \cdot n)\right]}{\left[V \cdot X \cdot m \cdot o \cdot p \cdot (V \cdot X \cdot m - W \cdot l \cdot n) - Y \cdot W^2 \cdot Z \cdot l^2 \cdot (X^2 + n^2)\right]} = 0$$

4RST5AB5R2



$N_1 = 1.65368$
$N_2 = 2.33168$
$N_3 = 0.93197$
$N_4 = 0.54218$
$N_5 = 0.30026$
$R = 0.43139$

Unit. $AB := 1$ **Given.** $N_1 := 1.65368$ $N_2 := 2.33168$ $N_3 := .93197$

$N_4 := .54218$ $N_5 := .30026$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$

$V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $l := \frac{V}{N_1}$ $m := \frac{W}{N_2}$ $n := \frac{X}{N_3}$ $o := \frac{Y}{N_4}$ $p := \frac{Z}{N_5}$

Descriptions.

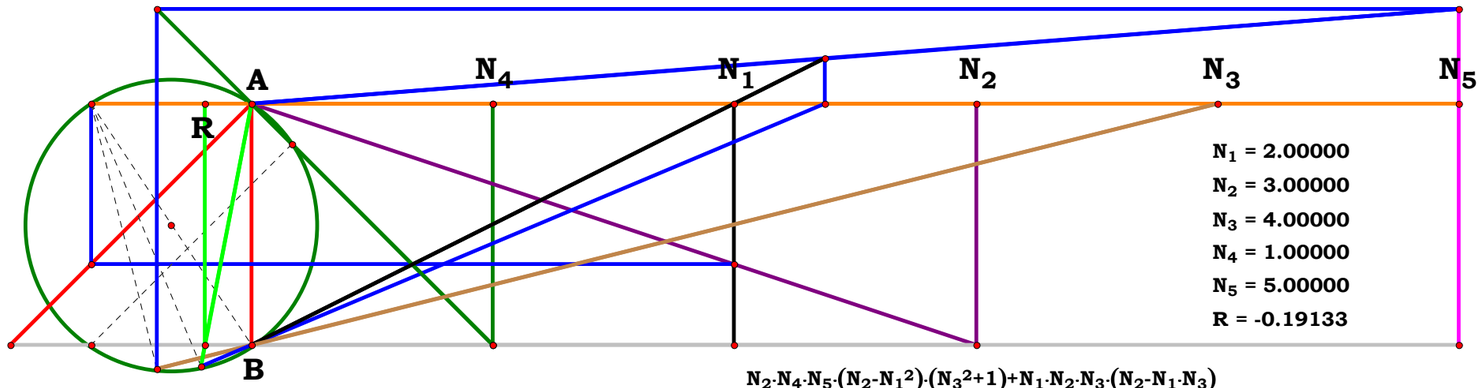
$AD := \frac{N_1}{N_2}$ $BN_3 := \sqrt{AB^2 + N_3^2}$ $FN_3 := \frac{N_3 \cdot (N_3 + AD)}{BN_3}$

$BF := BN_3 - FN_3$ $BG := \frac{N_3 \cdot BF}{BN_3}$ $EG := \frac{N_4 - BG}{N_4}$

$BO := \frac{N_5}{AB - EG}$ $AK := \frac{BO \cdot N_1}{BO + N_1}$ $BK := \sqrt{AB^2 + AK^2}$

$HK := \frac{AK \cdot (AK + AD)}{BK}$ $BH := BK - HK$ $BJ := \frac{AK \cdot BH}{BK}$

$HJ := \frac{BJ}{AK}$ $R := \frac{BJ}{AB - HJ}$ $R = 0.431384$



$N_1 = 2.00000$
$N_2 = 3.00000$
$N_3 = 4.00000$
$N_4 = 1.00000$
$N_5 = 5.00000$
$R = -0.19133$

$$\frac{N_2 \cdot N_4 \cdot N_5 \cdot (N_2 - N_1^2) \cdot (N_3^2 + 1) + N_1 \cdot N_2 \cdot N_3 \cdot (N_2 - N_1 \cdot N_3)}{N_1 \cdot N_2 \cdot N_4 \cdot N_5 \cdot (N_2 + 1) \cdot (N_3^2 + 1) + N_1^2 \cdot N_3 \cdot (N_2 - N_1 \cdot N_3)} - R = 0.00000$$

Definitions.

$$R - \frac{N_1 \cdot N_3 + N_4 \cdot N_5 - AD \cdot N_1 \cdot N_3^2 + N_3^2 \cdot N_4 \cdot N_5 - AD \cdot N_1 \cdot N_4 \cdot N_5 - AD \cdot N_1 \cdot N_3^2 \cdot N_4 \cdot N_5}{N_4 \cdot N_5 \cdot AD \cdot N_3^2 - N_1 \cdot AD^2 \cdot N_3^2 + N_1 \cdot AD \cdot N_3 + N_4 \cdot N_5 \cdot AD + N_1 \cdot N_4 \cdot N_5 \cdot N_3^2 + N_1 \cdot N_4 \cdot N_5} = 0$$

$$R - \frac{N_2 \cdot N_4 \cdot N_5 \cdot (N_2 - N_1^2) \cdot (N_3^2 + 1) + N_1 \cdot N_2 \cdot N_3 \cdot (N_2 - N_1 \cdot N_3)}{N_1 \cdot N_2 \cdot N_4 \cdot N_5 \cdot (N_2 + 1) \cdot (N_3^2 + 1) + N_1^2 \cdot N_3 \cdot (N_2 - N_1 \cdot N_3)} = 0$$

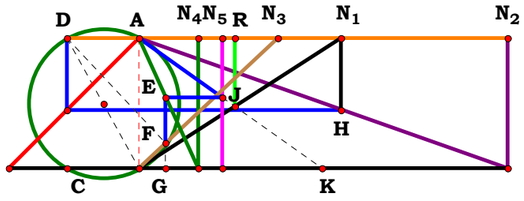
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$

$$R - \frac{E \cdot A \cdot D \cdot (A \cdot C - B \cdot N_u) + A \cdot (C^2 + N_u^2) \cdot (A^2 - B \cdot N_u)}{E \cdot B \cdot D \cdot (A \cdot C - B \cdot N_u) + A^2 \cdot (C^2 + N_u^2) \cdot (B + N_u)} = 0$$

$N_1 - \frac{V}{l} = 0$ $N_2 - \frac{W}{m} = 0$ $N_3 - \frac{X}{n} = 0$ $N_4 - \frac{Y}{o} = 0$ $N_5 - \frac{Z}{p} = 0$

$$R - \frac{Y \cdot W \cdot Z \cdot l \cdot (X^2 + n^2) \cdot (W \cdot l^2 - V^2 \cdot m) - V \cdot W \cdot X \cdot l \cdot o \cdot p \cdot (V \cdot X \cdot m - W \cdot l \cdot n)}{Y \cdot V \cdot W \cdot Z \cdot l^2 \cdot (X^2 + n^2) \cdot (W + m) - V^2 \cdot X \cdot m \cdot o \cdot p \cdot (V \cdot X \cdot m - W \cdot l \cdot n)} = 0$$

4RST5AB5R3



$N_1 = 1.54713$
$N_2 = 2.82566$
$N_3 = 1.06757$
$N_4 = 0.45500$
$N_5 = 0.63926$
$R = 0.73582$

Unit. $AB := 1$ Given. $N_1 := 1.54713$ $N_2 := 2.82566$ $N_3 := 1.06757$

$N_4 := .455$ $N_5 := .63926$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$

$V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $l := \frac{V}{N_1}$ $m := \frac{W}{N_2}$ $n := \frac{X}{N_3}$ $o := \frac{Y}{N_4}$ $p := \frac{Z}{N_5}$

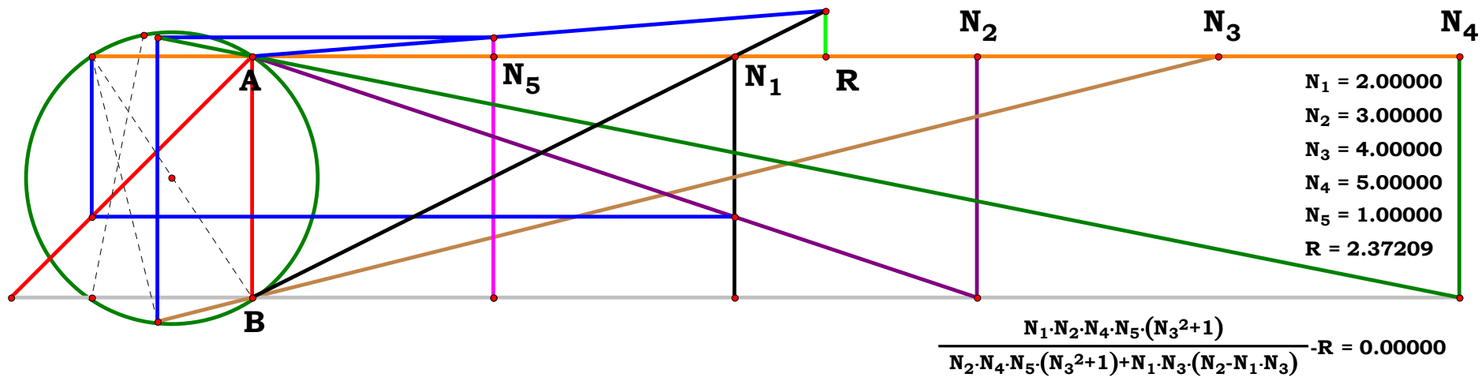
Descriptions.

$AD := \frac{N_1}{N_2}$ $BN_3 := \sqrt{AB^2 + N_3^2}$

$FN_3 := \frac{N_3 \cdot (N_3 + AD)}{BN_3}$ $BF := BN_3 - FN_3$

$BG := \frac{N_3 \cdot BF}{BN_3}$ $EG := \frac{N_4 - BG}{N_4}$

$BK := \frac{N_5}{AB - EG}$ $R := \frac{BK \cdot N_1}{BK + N_1}$ $R = 0.735811$



$\frac{N_1 \cdot N_2 \cdot N_4 \cdot N_5 \cdot (N_3^2+1)}{N_2 \cdot N_4 \cdot N_5 \cdot (N_3^2+1) + N_1 \cdot N_3 \cdot (N_2 - N_1 \cdot N_3)} - R = 0.00000$

Definitions.

$$R - \frac{N_1 \cdot N_4 \cdot N_5 \cdot (N_3^2 + 1)}{N_1 \cdot N_3 + N_4 \cdot N_5 - AD \cdot N_1 \cdot N_3^2 + N_3^2 \cdot N_4 \cdot N_5} = 0$$

$$R - \frac{N_1 \cdot N_2 \cdot N_4 \cdot N_5 \cdot (N_3^2 + 1)}{N_2 \cdot N_4 \cdot N_5 \cdot (N_3^2 + 1) + N_1 \cdot N_3 \cdot (N_2 - N_1 \cdot N_3)} = 0$$

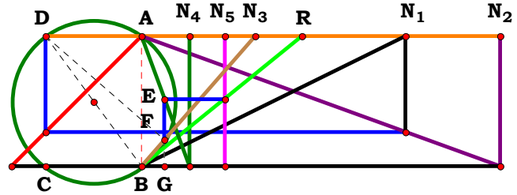
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$

$$R - \frac{A \cdot N_u \cdot (C^2 + N_u^2)}{A^2 \cdot (C^2 + N_u^2) + D \cdot E \cdot (A \cdot C - B \cdot N_u)} = 0$$

$N_1 - \frac{V}{l} = 0$ $N_2 - \frac{W}{m} = 0$ $N_3 - \frac{X}{n} = 0$ $N_4 - \frac{Y}{o} = 0$ $N_5 - \frac{Z}{p} = 0$

$$R - \frac{V \cdot W \cdot Y \cdot Z \cdot l \cdot (X^2 + n^2)}{Y \cdot W \cdot Z \cdot l^2 \cdot (X^2 + n^2) - V \cdot X \cdot o \cdot p \cdot (V \cdot X \cdot m - W \cdot l \cdot n)} = 0$$

4RST5AB5R4



$N_1 = 2.02174$
$N_2 = 2.74817$
$N_3 = 0.87386$
$N_4 = 0.36783$
$N_5 = 0.63926$
$R = 1.23191$

Unit. $AB := 1$ Given. $N_1 := 2.02174$ $N_2 := 2.74817$ $N_3 := .87386$

$N_4 := .36783$ $N_5 := .63926$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$

$V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $l := \frac{V}{N_1}$ $m := \frac{W}{N_2}$ $n := \frac{X}{N_3}$ $o := \frac{Y}{N_4}$ $p := \frac{Z}{N_5}$

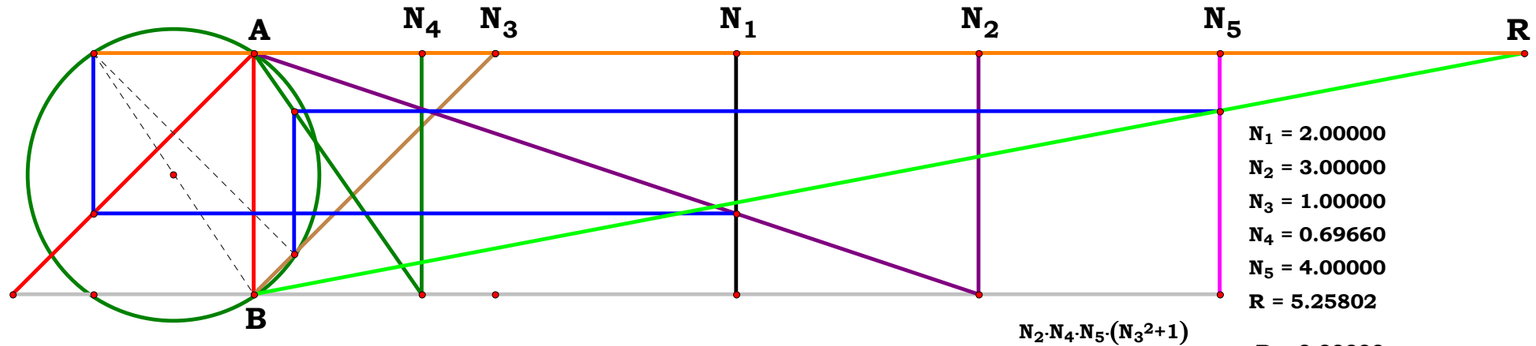
Descriptions.

$AD := \frac{N_1}{N_2}$ $BN_3 := \sqrt{AB^2 + N_3^2}$

$FN_3 := \frac{N_3 \cdot (N_3 + AD)}{BN_3}$ $BF := BN_3 - FN_3$

$BG := \frac{N_3 \cdot BF}{BN_3}$ $EG := \frac{N_4 - BG}{N_4}$

$R := \frac{N_5}{EG}$ $R = 1.231892$



$N_1 = 2.00000$
$N_2 = 3.00000$
$N_3 = 1.00000$
$N_4 = 0.69660$
$N_5 = 4.00000$
$R = 5.25802$

$\frac{N_2 \cdot N_4 \cdot N_5 \cdot (N_3^2+1)}{N_4 \cdot (N_2 \cdot N_3^2+N_2)+(N_1 \cdot N_3-N_2)} - R = 0.00000$

Definitions.

$R - \frac{N_4 \cdot N_5 \cdot (N_3^2 + 1)}{N_4 - N_3 + N_3^2 \cdot N_4 + AD \cdot N_3^2} = 0$

$R - \frac{N_2 \cdot N_4 \cdot N_5 \cdot (N_3^2 + 1)}{(N_2 \cdot N_3^2 + N_2) \cdot N_4 + N_3 \cdot (N_1 \cdot N_3 - N_2)} = 0$

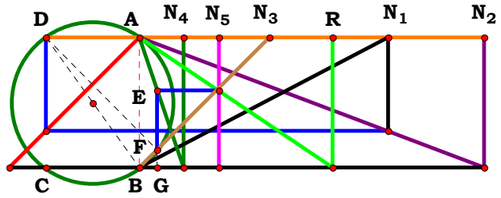
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$

$R - \frac{A \cdot N_u \cdot (C^2 + N_u^2)}{E \cdot [A \cdot C \cdot (C - D) + N_u \cdot (B \cdot D + A \cdot N_u)]} = 0$

$N_1 - \frac{V}{l} = 0$ $N_2 - \frac{W}{m} = 0$ $N_3 - \frac{X}{n} = 0$ $N_4 - \frac{Y}{o} = 0$ $N_5 - \frac{Z}{p} = 0$

$R - \frac{W \cdot Y \cdot Z \cdot 1 \cdot (X^2 + n^2)}{p \cdot [Y \cdot W \cdot 1 \cdot (X^2 + n^2) + X \cdot o \cdot (V \cdot X \cdot m - W \cdot 1 \cdot n)]} = 0$

4RST5AB5R5



$N_1 = 1.90551$
$N_2 = 2.64163$
$N_3 = 0.99977$
$N_4 = 0.33877$
$N_5 = 0.61020$
$R = 1.48279$

Unit. $AB := 1$ **Given.** $N_1 := 1.90551$ $N_2 := 2.64163$ $N_3 := .99977$

$N_4 := .33877$ $N_5 := .61020$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$

$V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $l := \frac{V}{N_1}$ $m := \frac{W}{N_2}$ $n := \frac{X}{N_3}$ $o := \frac{Y}{N_4}$ $p := \frac{Z}{N_5}$

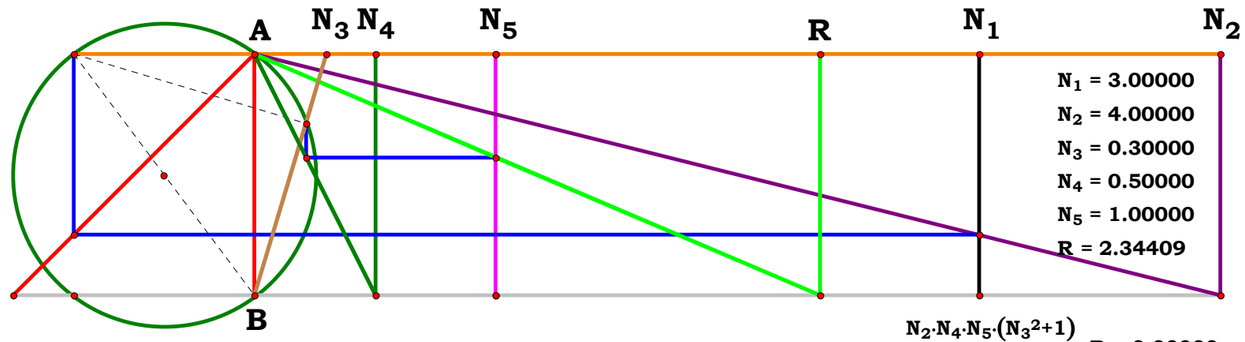
Descriptions.

$AD := \frac{N_1}{N_2}$ $BN_3 := \sqrt{AB^2 + N_3^2}$

$FN_3 := \frac{N_3 \cdot (N_3 + AD)}{BN_3}$ $BF := BN_3 - FN_3$

$BG := \frac{N_3 \cdot BF}{BN_3}$ $EG := \frac{N_4 - BG}{N_4}$

$R := \frac{N_5}{AB - EG}$ $R = 1.482764$



$N_1 = 3.00000$
$N_2 = 4.00000$
$N_3 = 0.30000$
$N_4 = 0.50000$
$N_5 = 1.00000$
$R = 2.34409$

$\frac{N_2 \cdot N_4 \cdot N_5 \cdot (N_3^2+1)}{N_3 \cdot (N_2 - N_1 \cdot N_3)} - R = 0.00000$

Definitions.

$R - \frac{N_4 \cdot N_5 \cdot (N_3^2 + 1)}{N_3 - AD \cdot N_3^2} = 0$

$R - \frac{N_2 \cdot N_4 \cdot N_5 \cdot (N_3^2 + 1)}{N_3 \cdot (N_2 - N_1 \cdot N_3)} = 0$

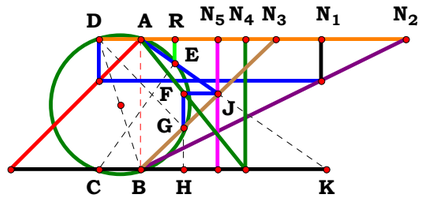
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$

$R - \frac{A \cdot N_u \cdot (C^2 + N_u^2)}{E \cdot (A \cdot C \cdot D - B \cdot D \cdot N_u)} = 0$

$N_1 - \frac{V}{l} = 0$ $N_2 - \frac{W}{m} = 0$ $N_3 - \frac{X}{n} = 0$ $N_4 - \frac{Y}{o} = 0$ $N_5 - \frac{Z}{p} = 0$

$R - \frac{W \cdot Y \cdot Z \cdot l \cdot (X^2 + n^2)}{X \cdot o \cdot p \cdot (W \cdot l \cdot n - V \cdot X \cdot m)} = 0$

4RST5AB6R0



$N_1 = 1.38247$
$N_2 = 2.03142$
$N_3 = 1.03851$
$N_4 = 0.80369$
$N_5 = 0.59083$
$R = 0.25675$

Descriptions.

$$AD := \frac{N_2 - N_1}{N_2} \qquad BN_3 := \sqrt{AB^2 + N_3{}^2} \qquad GN_3 := \frac{N_3 \cdot (N_3 + AD)}{BN_3}$$

$$BG := BN_3 - GN_3 \qquad BH := \frac{N_3 \cdot BG}{BN_3} \qquad FH := \frac{N_4 - BH}{N_4}$$

$$BK := \frac{N_5}{AB - FH} \qquad AK := \sqrt{AB^2 + BK^2} \qquad EK := \frac{BK \cdot (BK + AD)}{AK}$$

$$AE := AK - EK \qquad R := \frac{BK \cdot AE}{AK} \qquad R = 0.256747$$

Definitions.

$$R - \frac{N_2 \cdot N_4{}^2 \cdot N_5{}^2 \cdot \left(N_3{}^2 + 1\right)^2 \cdot \left(N_1 - N_2\right) + N_2 \cdot N_3 \cdot N_4 \cdot N_5 \cdot \left(N_3{}^2 + 1\right) \cdot \left(N_2 + N_1 \cdot N_3 - N_2 \cdot N_3\right)}{N_2{}^2 \cdot N_4{}^2 \cdot N_5{}^2 \cdot \left(N_3{}^2 + 1\right)^2 + N_3{}^2 \cdot \left(N_2 + N_1 \cdot N_3 - N_2 \cdot N_3\right)^2} = 0$$

$$N_1 - \frac{N_u}{A} = 0 \qquad N_2 - \frac{N_u}{B} = 0 \qquad N_3 - \frac{N_u}{C} = 0 \qquad N_4 - \frac{N_u}{D} = 0 \qquad N_5 - \frac{N_u}{E} = 0$$

$$R - \frac{A \cdot N_u \cdot \left(C^2 + N_u{}^2\right) \cdot \left[E \cdot D \cdot \left[A \cdot C - N_u \cdot (A - B)\right]\right] - N_u \cdot \left(C^2 + N_u{}^2\right) \cdot (A - B)\Big]}{E^2 \cdot D^2 \cdot \left[A \cdot C - N_u \cdot (A - B)\right]^2 + A^2 \cdot N_u{}^2 \cdot \left(C^2 + N_u{}^2\right)^2} = 0$$

$$N_1 - \frac{V}{l} = 0 \qquad N_2 - \frac{W}{m} = 0 \qquad N_3 - \frac{X}{n} = 0 \qquad N_4 - \frac{Y}{o} = 0 \qquad N_5 - \frac{Z}{p} = 0$$

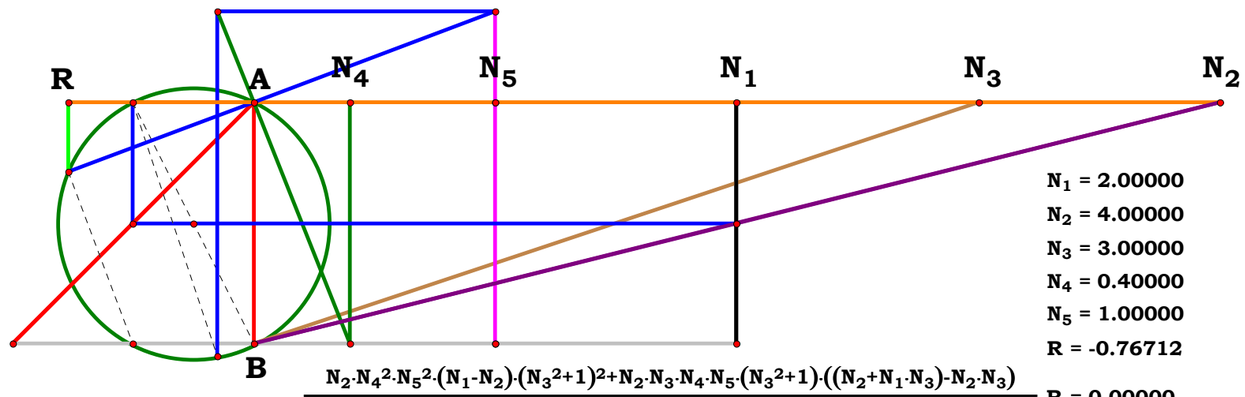
$$R - \frac{W \cdot Y \cdot Z \cdot l \cdot \left(X^2 + n^2\right) \cdot \left[Y \cdot Z \cdot \left(X^2 + n^2\right) \cdot (V \cdot m - W \cdot l) + X \cdot o \cdot p \cdot (V \cdot X \cdot m - W \cdot X \cdot l + W \cdot l \cdot n)\right]}{Y^2 \cdot W^2 \cdot Z^2 \cdot l^2 \cdot \left(X^2 + n^2\right)^2 + X^2 \cdot o^2 \cdot p^2 \cdot (V \cdot X \cdot m - W \cdot X \cdot l + W \cdot l \cdot n)^2} = 0$$

Unit. $AB := 1$ **Given.** $N_1 := 1.38247$ $N_2 := 2.03142$ $N_3 := 1.03851$

$N_4 := .80369$ $N_5 := .59083$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$

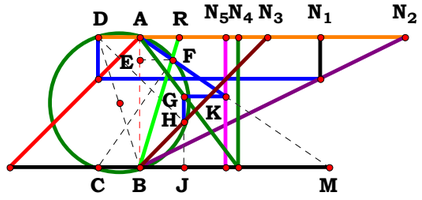
$V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $l := \frac{V}{N_1}$ $m := \frac{W}{N_2}$ $n := \frac{X}{N_3}$ $o := \frac{Y}{N_4}$ $p := \frac{Z}{N_5}$



$N_1 = 2.00000$
$N_2 = 4.00000$
$N_3 = 3.00000$
$N_4 = 0.40000$
$N_5 = 1.00000$
$R = -0.76712$

$$\frac{N_2 \cdot N_4{}^2 \cdot N_5{}^2 \cdot (N_1 - N_2) \cdot (N_3{}^2 + 1)^2 + N_2 \cdot N_3 \cdot N_4 \cdot N_5 \cdot (N_3{}^2 + 1) \cdot ((N_2 + N_1 \cdot N_3) - N_2 \cdot N_3)}{(N_2 \cdot N_4 \cdot N_5 \cdot (N_3{}^2 + 1))^2 + N_3{}^2 \cdot ((N_2 + N_1 \cdot N_3) - N_2 \cdot N_3)^2} - R = 0.00000$$

4RST5AB6R1



$N_1 = 1.38247$
$N_2 = 2.03142$
$N_3 = 0.98040$
$N_4 = 0.75526$
$N_5 = 0.65863$
$R = 0.30377$

Unit. $AB := 1$ **Given.** $N_1 := 1.38247$ $N_2 := 2.03142$ $N_3 := .98040$

$N_4 := .75526$ $N_5 := .65863$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$

$V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $l := \frac{V}{N_1}$ $m := \frac{W}{N_2}$ $n := \frac{X}{N_3}$ $o := \frac{Y}{N_4}$ $p := \frac{Z}{N_5}$

Descriptions.

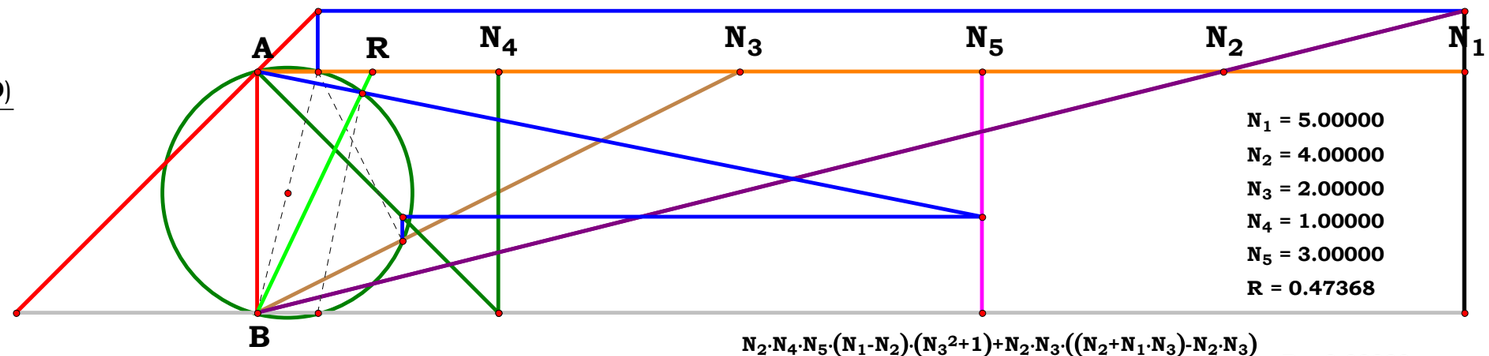
$$AD := \frac{N_2 - N_1}{N_2} \qquad BN_3 := \sqrt{AB^2 + N_3{}^2} \qquad HN_3 := \frac{N_3 \cdot (N_3 + AD)}{BN_3}$$

$$BH := BN_3 - HN_3 \qquad BJ := \frac{N_3 \cdot BH}{BN_3} \qquad HJ := \frac{N_4 - BJ}{N_4}$$

$$BM := \frac{N_5}{AB - HJ} \qquad AM := \sqrt{AB^2 + BM^2} \qquad FM := \frac{BM \cdot (BM + AD)}{AM}$$

$$AF := AM - FM \qquad AE := \frac{AF}{AM} \qquad EF := \frac{BM \cdot AF}{AM}$$

$$R := \frac{EF}{AB - AE} \qquad R = 0.303773$$



$$\frac{N_2 \cdot N_4 \cdot N_5 \cdot (N_1 - N_2) \cdot (N_3{}^2 + 1) + N_2 \cdot N_3 \cdot ((N_2 + N_1 \cdot N_3) - N_2 \cdot N_3)}{N_2{}^2 \cdot N_4 \cdot N_5 \cdot (N_3{}^2 + 1) - N_3{}^2 \cdot (N_1 - N_2)^2 - N_2 \cdot N_3 \cdot (N_1 - N_2)} - R = 0.00000$$

Definitions.

$$R - \frac{AD \cdot N_3{}^2 - N_3 + AD \cdot N_4 \cdot N_5 + AD \cdot N_3{}^2 \cdot N_4 \cdot N_5}{AD^2 \cdot N_3{}^2 - AD \cdot N_3 - N_4 \cdot N_5 \cdot N_3{}^2 - N_4 \cdot N_5} = 0$$

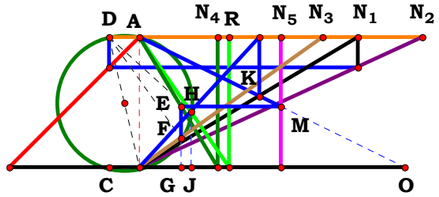
$$R - \frac{N_2 \cdot N_4 \cdot N_5 \cdot (N_3{}^2 + 1) \cdot (N_1 - N_2) + N_2 \cdot N_3 \cdot (N_2 + N_1 \cdot N_3 - N_2 \cdot N_3)}{N_2{}^2 \cdot N_4 \cdot N_5 \cdot (N_3{}^2 + 1) - N_3{}^2 \cdot (N_1 - N_2)^2 - N_2 \cdot N_3 \cdot (N_1 - N_2)} = 0$$

$$N_1 - \frac{N_u}{A} = 0 \qquad N_2 - \frac{N_u}{B} = 0 \qquad N_3 - \frac{N_u}{C} = 0 \qquad N_4 - \frac{N_u}{D} = 0 \qquad N_5 - \frac{N_u}{E} = 0$$

$$R - \frac{E \cdot A \cdot D \cdot [A \cdot C - N_u \cdot (A - B)] - A \cdot N_u \cdot (C^2 + N_u{}^2) \cdot (A - B)}{E \cdot D \cdot (A - B) \cdot [A \cdot C - N_u \cdot (A - B)] + A^2 \cdot N_u \cdot (C^2 + N_u{}^2)} = 0 \qquad N_1 - \frac{V}{l} = 0 \qquad N_2 - \frac{W}{m} = 0 \qquad N_3 - \frac{X}{n} = 0 \qquad N_4 - \frac{Y}{o} = 0 \qquad N_5 - \frac{Z}{p} = 0$$

$$R - \frac{W \cdot l \cdot [Y \cdot Z \cdot (X^2 + n^2) \cdot (V \cdot m - W \cdot l) + X \cdot o \cdot p \cdot (V \cdot X \cdot m - W \cdot X \cdot l + W \cdot l \cdot n)]}{Y \cdot W^2 \cdot Z \cdot l^2 \cdot (X^2 + n^2) - X \cdot o \cdot p \cdot (V \cdot m - W \cdot l) \cdot (V \cdot X \cdot m - W \cdot X \cdot l + W \cdot l \cdot n)} = 0$$

4RST5AB6R2



$N_1 = 1.67305$
$N_2 = 2.16702$
$N_3 = 1.40657$
$N_4 = 0.60029$
$N_5 = 1.08481$
$R = 0.69075$

Unit. $AB := 1$ Given. $N_1 := 1.67305$ $N_2 := 2.16702$ $N_3 := 1.40657$

$N_4 := .60029$ $N_5 := 1.08481$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$

$V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $l := \frac{V}{N_1}$ $m := \frac{W}{N_2}$ $n := \frac{X}{N_3}$ $o := \frac{Y}{N_4}$ $p := \frac{Z}{N_5}$

Descriptions.

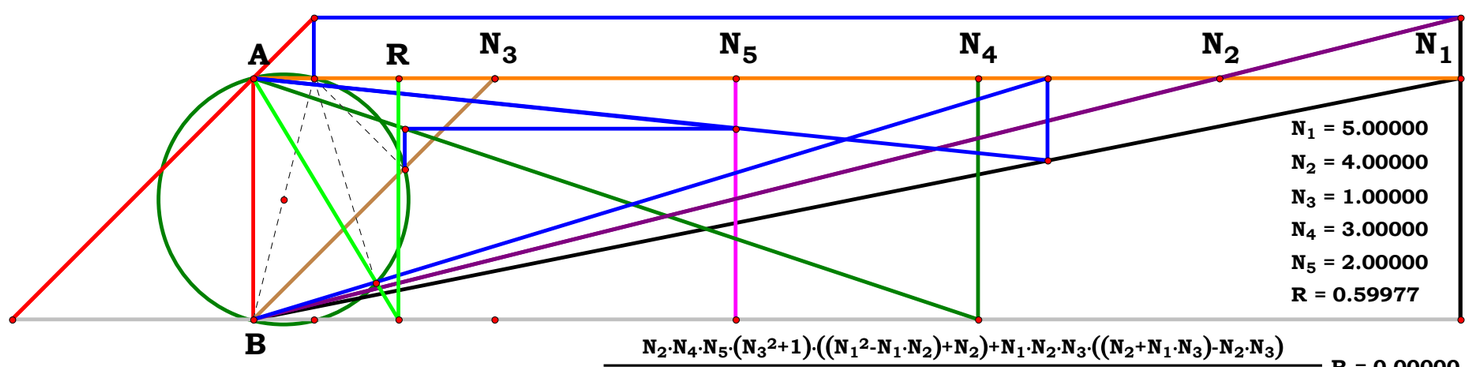
$AD := \frac{N_2 - N_1}{N_2}$ $BN_3 := \sqrt{AB^2 + N_3^2}$ $FN_3 := \frac{N_3 \cdot (N_3 + AD)}{BN_3}$

$BF := BN_3 - FN_3$ $BG := \frac{N_3 \cdot BF}{BN_3}$ $EG := \frac{N_4 - BG}{N_4}$

$BO := \frac{N_5}{AB - EG}$ $AK := \frac{BO \cdot N_1}{BO + N_1}$ $BK := \sqrt{AB^2 + AK^2}$

$HK := \frac{AK \cdot (AK + AD)}{BK}$ $BH := BK - HK$ $BJ := \frac{AK \cdot BH}{BK}$

$HJ := \frac{BJ}{AK}$ $R := \frac{BJ}{AB - HJ}$ $R = 0.690754$



$\frac{N_2 \cdot N_4 \cdot N_5 \cdot (N_3^2+1) \cdot ((N_1^2 - N_1 \cdot N_2) + N_2) + N_1 \cdot N_2 \cdot N_3 \cdot ((N_2 + N_1 \cdot N_3) - N_2 \cdot N_3)}{N_2 \cdot N_4 \cdot N_5 \cdot (N_3^2+1) \cdot ((N_2 - N_1) + N_1 \cdot N_2) - N_1 \cdot N_3 \cdot (N_1 - N_2) \cdot ((N_2 + N_1 \cdot N_3) - N_2 \cdot N_3)} - R = 0.00000$

Definitions.

$$R - \frac{N_1 \cdot N_3 + N_4 \cdot N_5 - AD \cdot N_1 \cdot N_3^2 + N_3^2 \cdot N_4 \cdot N_5 - AD \cdot N_1 \cdot N_4 \cdot N_5 - AD \cdot N_1 \cdot N_3^2 \cdot N_4 \cdot N_5}{AD \cdot N_3^2 \cdot N_4 \cdot N_5 - AD^2 \cdot N_1 \cdot N_3^2 + AD \cdot N_1 \cdot N_3 + AD \cdot N_4 \cdot N_5 + N_1 \cdot N_3^2 \cdot N_4 \cdot N_5 + N_1 \cdot N_4 \cdot N_5} = 0$$

$$R - \frac{N_2 \cdot N_4 \cdot N_5 \cdot (N_3^2 + 1) \cdot (N_1^2 - N_1 \cdot N_2 + N_2) + N_1 \cdot N_2 \cdot N_3 \cdot (N_2 + N_1 \cdot N_3 - N_2 \cdot N_3)}{N_2 \cdot N_4 \cdot N_5 \cdot (N_3^2 + 1) \cdot (N_2 - N_1 + N_1 \cdot N_2) - N_1 \cdot N_3 \cdot (N_1 - N_2) \cdot (N_2 + N_1 \cdot N_3 - N_2 \cdot N_3)} = 0$$

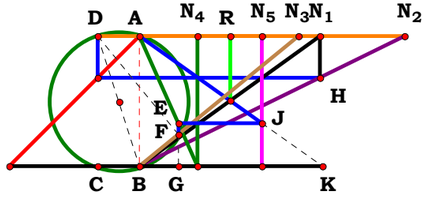
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$

$$R - \frac{E \cdot A \cdot D \cdot [A \cdot C - N_u \cdot (A - B)] + A \cdot (C^2 + N_u^2) \cdot [A^2 - N_u \cdot (A - B)]}{E \cdot D \cdot (A - B) \cdot [A \cdot C - N_u \cdot (A - B)] + A^2 \cdot (C^2 + N_u^2) \cdot (A - B + N_u)} = 0$$

$N_1 - \frac{V}{l} = 0$ $N_2 - \frac{W}{m} = 0$ $N_3 - \frac{X}{n} = 0$ $N_4 - \frac{Y}{o} = 0$ $N_5 - \frac{Z}{p} = 0$

$$R - \frac{Y \cdot W \cdot Z \cdot 1 \cdot (X^2 + n^2) \cdot (m \cdot V^2 - W \cdot V \cdot 1 + W \cdot 1^2) + V \cdot W \cdot X \cdot 1 \cdot o \cdot p \cdot (V \cdot X \cdot m - W \cdot X \cdot 1 + W \cdot 1 \cdot n)}{Y \cdot W \cdot Z \cdot 1^2 \cdot (X^2 + n^2) \cdot (V \cdot W - V \cdot m + W \cdot 1) - V \cdot X \cdot o \cdot p \cdot (V \cdot m - W \cdot 1) \cdot (V \cdot X \cdot m - W \cdot X \cdot 1 + W \cdot 1 \cdot n)} = 0$$

4RST5AB6R3



$N_1 = 1.38247$
$N_2 = 2.03142$
$N_3 = 1.22254$
$N_4 = 0.44532$
$N_5 = 0.93952$
$R = 0.69579$

Unit. $AB := 1$ **Given.** $N_1 := 1.38247$ $N_2 := 2.03142$ $N_3 := 1.22254$

$N_4 := .44532$ $N_5 := .93952$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$

$V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $l := \frac{V}{N_1}$ $m := \frac{W}{N_2}$ $n := \frac{X}{N_3}$ $o := \frac{Y}{N_4}$ $p := \frac{Z}{N_5}$

Descriptions.

$AD := \frac{N_2 - N_1}{N_2}$ $BN_3 := \sqrt{AB^2 + N_3^2}$ $FN_3 := \frac{N_3 \cdot (N_3 + AD)}{BN_3}$

$BF := BN_3 - FN_3$ $BG := \frac{N_3 \cdot BF}{BN_3}$ $EG := \frac{N_4 - BG}{N_4}$

$BK := \frac{N_5}{AB - EG}$ $R := \frac{BK \cdot N_1}{BK + N_1}$ $R = 0.695788$

Definitions.

$$R - \frac{N_1 \cdot N_4 \cdot N_5 \cdot (N_3^2 + 1)}{N_1 \cdot N_3 + N_4 \cdot N_5 - AD \cdot N_1 \cdot N_3^2 + N_3^2 \cdot N_4 \cdot N_5} = 0$$

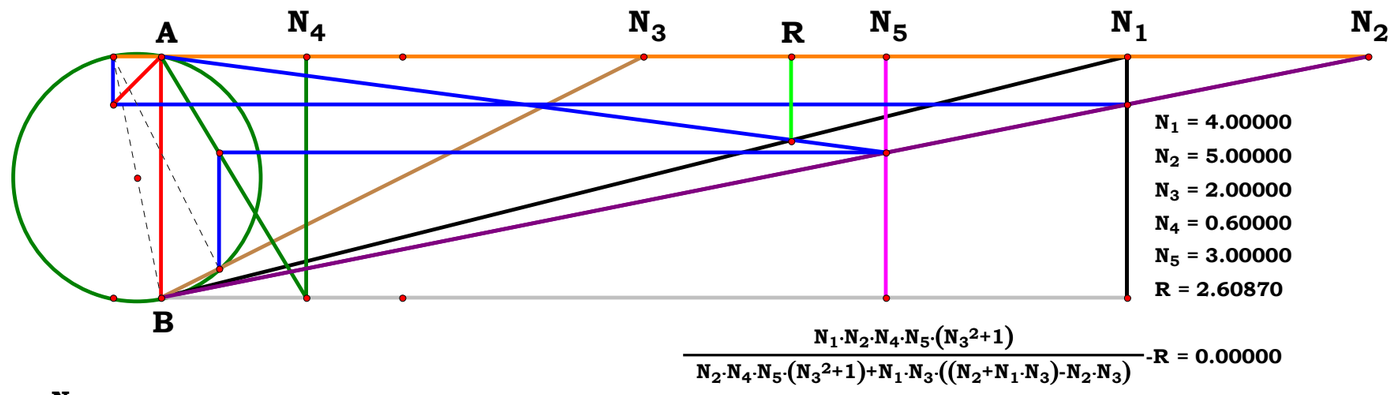
$$R - \frac{N_1 \cdot N_2 \cdot N_4 \cdot N_5 \cdot (N_3^2 + 1)}{N_2 \cdot N_4 \cdot N_5 \cdot (N_3^2 + 1) + N_1 \cdot N_3 \cdot (N_2 + N_1 \cdot N_3 - N_2 \cdot N_3)} = 0$$

$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$

$$R - \frac{A \cdot N_u \cdot (C^2 + N_u^2)}{A^2 \cdot (C^2 + N_u^2) + D \cdot E \cdot [A \cdot C - N_u \cdot (A - B)]} = 0$$

$N_1 - \frac{V}{l} = 0$ $N_2 - \frac{W}{m} = 0$ $N_3 - \frac{X}{n} = 0$ $N_4 - \frac{Y}{o} = 0$ $N_5 - \frac{Z}{p} = 0$

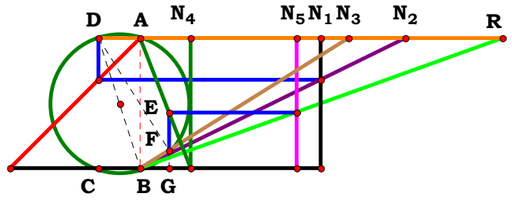
$$R - \frac{V \cdot W \cdot Y \cdot Z \cdot l \cdot (X^2 + n^2)}{Y \cdot W \cdot Z \cdot l^2 \cdot (X^2 + n^2) + V \cdot X \cdot o \cdot p \cdot (V \cdot X \cdot m - W \cdot X \cdot l + W \cdot l \cdot n)} = 0$$



$N_1 = 4.00000$
$N_2 = 5.00000$
$N_3 = 2.00000$
$N_4 = 0.60000$
$N_5 = 3.00000$
$R = 2.60870$

$$\frac{N_1 \cdot N_2 \cdot N_4 \cdot N_5 \cdot (N_3^2+1)}{N_2 \cdot N_4 \cdot N_5 \cdot (N_3^2+1) + N_1 \cdot N_3 \cdot ((N_2 + N_1 \cdot N_3) - N_2 \cdot N_3)} - R = 0.00000$$

4RST5AB6R4



$N_1 = 1.38247$
$N_2 = 2.03142$
$N_3 = 1.60029$
$N_4 = 0.38720$
$N_5 = 1.20104$
$R = 2.77566$

Unit. $AB := 1$ **Given.** $N_1 := 1.38247$ $N_2 := 2.03142$ $N_3 := 1.60029$

$N_4 := .38720$ $N_5 := 1.20104$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$

$V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $l := \frac{V}{N_1}$ $m := \frac{W}{N_2}$ $n := \frac{X}{N_3}$ $o := \frac{Y}{N_4}$ $p := \frac{Z}{N_5}$

Descriptions.

$$AD := \frac{N_2 - N_1}{N_2} \qquad BN_3 := \sqrt{AB^2 + N_3^2} \qquad FN_3 := \frac{N_3 \cdot (N_3 + AD)}{BN_3}$$

$$BF := BN_3 - FN_3 \qquad BG := \frac{N_3 \cdot BF}{BN_3} \qquad EG := \frac{N_4 - BG}{N_4}$$

$$R := \frac{N_5}{EG} \qquad R = 2.775673$$

Definitions.

$$R - \frac{N_4 \cdot N_5 \cdot (N_3^2 + 1)}{N_4 - N_3 + N_3^2 \cdot N_4 + AD \cdot N_3^2} = 0$$

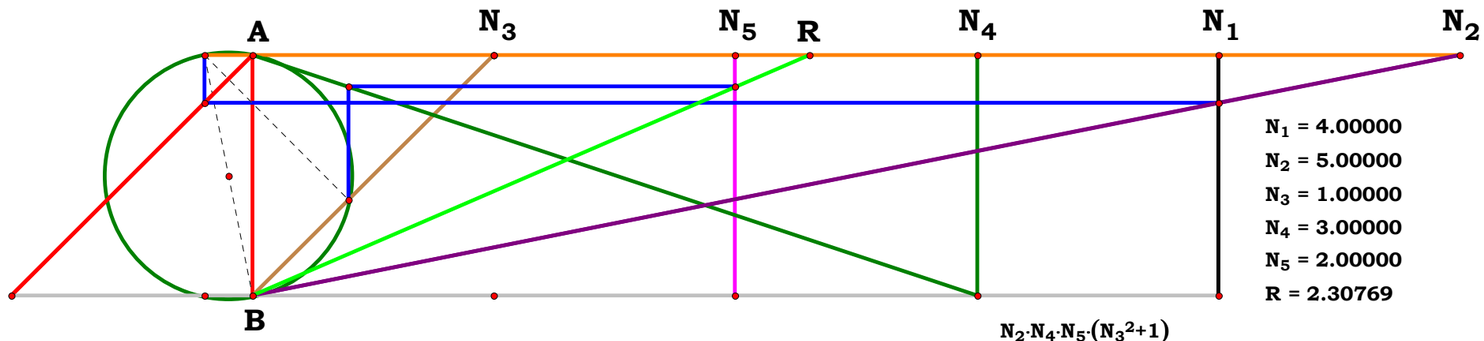
$$R - \frac{N_2 \cdot N_4 \cdot N_5 \cdot (N_3^2 + 1)}{(N_2 - N_1 + N_2 \cdot N_4) \cdot N_3^2 - N_2 \cdot (N_3 - N_4)} = 0$$

$$N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0 \quad N_4 - \frac{N_u}{D} = 0 \quad N_5 - \frac{N_u}{E} = 0$$

$$R - \frac{A \cdot N_u \cdot (C^2 + N_u^2)}{E \cdot [A \cdot (C^2 - D \cdot C + N_u^2) + D \cdot N_u \cdot (A - B)]} = 0$$

$$N_1 - \frac{V}{l} = 0 \quad N_2 - \frac{W}{m} = 0 \quad N_3 - \frac{X}{n} = 0 \quad N_4 - \frac{Y}{o} = 0 \quad N_5 - \frac{Z}{p} = 0$$

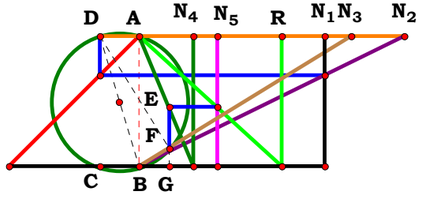
$$R - \frac{W \cdot Y \cdot Z \cdot l \cdot (X^2 + n^2)}{p \cdot [Y \cdot W \cdot l \cdot (X^2 + n^2) - X \cdot o \cdot (V \cdot X \cdot m - W \cdot X \cdot l + W \cdot l \cdot n)]} = 0$$



$N_1 = 4.00000$
$N_2 = 5.00000$
$N_3 = 1.00000$
$N_4 = 3.00000$
$N_5 = 2.00000$
$R = 2.30769$

$$\frac{N_2 \cdot N_4 \cdot N_5 \cdot (N_3^2 + 1)}{N_3^2 \cdot ((N_2 - N_1) + N_2 \cdot N_4) - N_2 \cdot (N_3 - N_4)} - R = 0.00000$$

4RST5AB6R5



$N_1 = 1.42122$
$N_2 = 2.03142$
$N_3 = 1.62935$
$N_4 = 0.41626$
$N_5 = 0.60052$
$R = 1.09820$

Unit. $AB := 1$ **Given.** $N_1 := 1.42122$ $N_2 := 2.03142$ $N_3 := 1.62935$

$N_4 := .41626$ $N_5 := .60052$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$

$V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $l := \frac{V}{N_1}$ $m := \frac{W}{N_2}$ $n := \frac{X}{N_3}$ $o := \frac{Y}{N_4}$ $p := \frac{Z}{N_5}$

Descriptions.

$$AD := \frac{N_2 - N_1}{N_2} \qquad BN_3 := \sqrt{AB^2 + N_3^2} \qquad FN_3 := \frac{N_3 \cdot (N_3 + AD)}{BN_3}$$

$$BF := BN_3 - FN_3 \qquad BG := \frac{N_3 \cdot BF}{BN_3} \qquad EG := \frac{N_4 - BG}{N_4}$$

$$R := \frac{N_5}{AB - EG} \qquad R = 1.098197$$

Definitions.

$$R - \frac{N_4 \cdot N_5 \cdot (N_3^2 + 1)}{N_3 - AD \cdot N_3^2} = 0$$

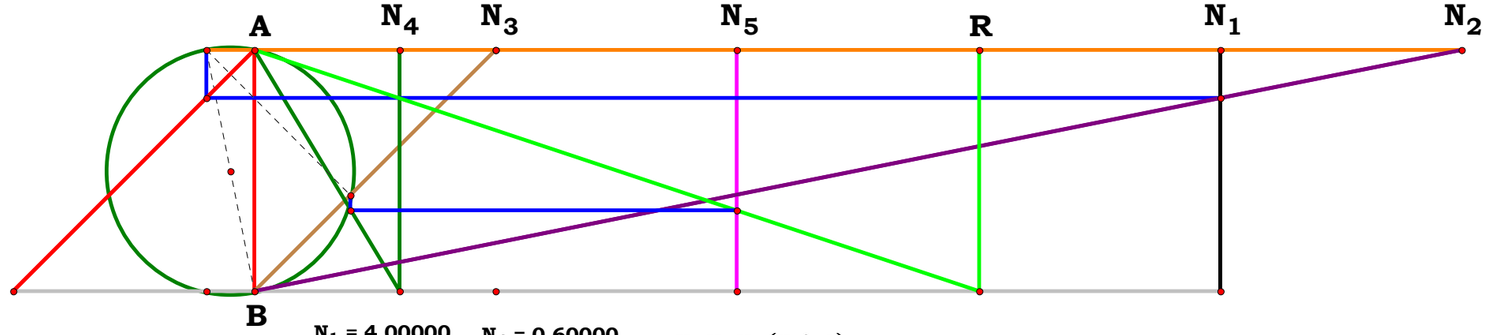
$$R - \frac{N_2 \cdot N_4 \cdot N_5 \cdot (N_3^2 + 1)}{N_3 \cdot (N_2 + N_1 \cdot N_3 - N_2 \cdot N_3)} = 0$$

$$N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0 \quad N_4 - \frac{N_u}{D} = 0 \quad N_5 - \frac{N_u}{E} = 0$$

$$R - \frac{A \cdot N_u \cdot (C^2 + N_u^2)}{E \cdot [A \cdot C \cdot D - D \cdot N_u \cdot (A - B)]} = 0$$

$$N_1 - \frac{V}{l} = 0 \quad N_2 - \frac{W}{m} = 0 \quad N_3 - \frac{X}{n} = 0 \quad N_4 - \frac{Y}{o} = 0 \quad N_5 - \frac{Z}{p} = 0$$

$$R - \frac{W \cdot Y \cdot Z \cdot l \cdot (X^2 + n^2)}{X \cdot o \cdot p \cdot (V \cdot X \cdot m - W \cdot X \cdot l + W \cdot l \cdot n)} = 0$$

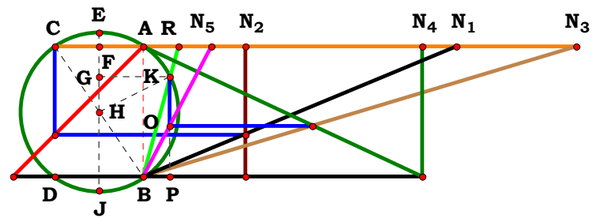


$N_1 = 4.00000$ $N_4 = 0.60000$ $\frac{N_2 \cdot N_4 \cdot N_5 \cdot (N_3^2+1)}{N_3 \cdot ((N_2+N_1 \cdot N_3)-N_2 \cdot N_3)} - R = 0.00000$

$N_2 = 5.00000$ $N_5 = 2.00000$

$N_3 = 1.00000$ $R = 3.00000$

4RST6AB1R0



$N_1 = 2.39948$
$N_2 = 0.78196$
$N_3 = 3.32436$
$N_4 = 2.14033$
$N_5 = 0.52303$
$R = 0.26797$

Unit. $AB := 1$ Given. $N_1 := 2.39948$ $N_2 := .78196$ $N_3 := 3.32436$

$N_4 := 2.14033$ $N_5 := .52303$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$

$V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $l := \frac{V}{N_1}$ $m := \frac{W}{N_2}$ $n := \frac{X}{N_3}$ $o := \frac{Y}{N_4}$ $p := \frac{Z}{N_5}$

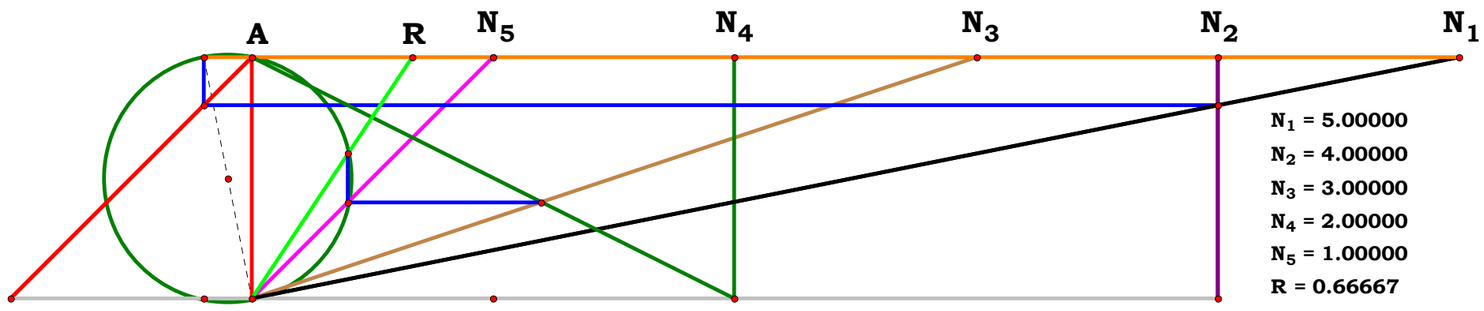
Descriptions.

$AC := \frac{N_1 - N_2}{N_1}$ $EJ := \sqrt{AB^2 + AC^2}$ $EF := \frac{EJ - AB}{2}$

$AF := \frac{AC}{2}$ $OP := \frac{N_4}{N_3 + N_4}$ $BP := N_5 \cdot OP$

$GK := BP + AF$ $HK := \frac{EJ}{2}$ $GH := \sqrt{HK^2 - GK^2}$

$KO := \frac{AB}{2} + GH$ $R := \frac{BP}{KO}$ $R = 0.267969$



$N_1 = 5.00000$
$N_2 = 4.00000$
$N_3 = 3.00000$
$N_4 = 2.00000$
$N_5 = 1.00000$
$R = 0.66667$

$\frac{2 \cdot \sqrt{N_1} \cdot N_4 \cdot N_5}{\sqrt{N_1} \cdot (N_3+N_4) + \sqrt{N_1 \cdot (N_3+N_4)^2 - 4 \cdot N_1 \cdot N_4^2 \cdot N_5^2 - 4 \cdot N_4 \cdot N_5 \cdot (N_3+N_4) \cdot (N_1-N_2)}} - R = 0.00000$

Definitions.

$$R - \frac{2 \cdot N_4 \cdot N_5 \cdot \sqrt{(N_3 + N_4)^2}}{\left[(N_3 + N_4) \cdot \left[\sqrt{(N_3 + N_4)^2 - 4 \cdot N_4 \cdot N_5 \cdot [AC \cdot (N_3 + N_4) + N_4 \cdot N_5]} + \sqrt{(N_3 + N_4)^2}\right]\right]} = 0$$

$$R - \frac{2 \cdot \sqrt{N_1} \cdot N_4 \cdot N_5}{\sqrt{N_1} \cdot (N_3 + N_4) + \sqrt{N_1 \cdot (N_3 + N_4)^2 - 4 \cdot N_1 \cdot N_4^2 \cdot N_5^2 - 4 \cdot N_4 \cdot N_5 \cdot (N_3 + N_4) \cdot (N_1 - N_2)}} = 0$$

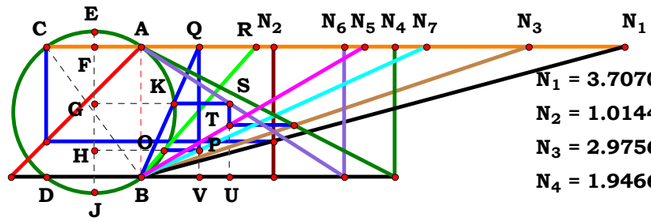
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$

$$R - \frac{2 \cdot C \cdot \left(\sqrt{N_u}\right)^3 \cdot \sqrt{B}}{\sqrt{N_u \cdot [B \cdot E^2 \cdot (C + D)^2 - 4 \cdot B \cdot C^2 \cdot N_u^2 + 4 \cdot C \cdot E \cdot N_u \cdot (C + D) \cdot (A - B)]} + \sqrt{B} \cdot \sqrt{N_u} \cdot E \cdot (C + D)} = 0$$

$N_1 - \frac{V}{l} = 0$ $N_2 - \frac{W}{m} = 0$ $N_3 - \frac{X}{n} = 0$ $N_4 - \frac{Y}{o} = 0$ $N_5 - \frac{Z}{p} = 0$

$$R - \frac{2 \cdot \sqrt{V} \cdot Y \cdot Z \cdot n \cdot \sqrt{l \cdot m}}{\sqrt{l} \cdot \sqrt{V \cdot m \cdot p^2 \cdot (X \cdot o + Y \cdot n)^2 - 4 \cdot Y \cdot Z \cdot n \cdot p \cdot (V \cdot m - W \cdot l) \cdot (X \cdot o + Y \cdot n) - 4 \cdot V \cdot Y^2 \cdot m \cdot n^2 \cdot Z^2} + \sqrt{l \cdot m} \cdot \sqrt{V} \cdot p \cdot (X \cdot o + Y \cdot n)} = 0$$

4RST6AB1R1



$N_1 = 3.70706$ $N_5 = 1.71438$
$N_2 = 1.01441$ $N_6 = 1.55941$
$N_3 = 2.97567$ $N_7 = 2.18899$
$N_4 = 1.94661$ $R = 0.88032$

Unit. $AB := 1$ **Given.** $N_1 := 3.70706$ $N_2 := 1.01441$ $N_3 := 2.97567$ $N_4 := 1.94661$
$N_5 := 1.71438$ $N_6 := 1.55941$ $N_7 := 2.18899$

Descriptions.

$$AC := \frac{N_1 - N_2}{N_1} \qquad EJ := \sqrt{AB^2 + AC^2}$$

$$AF := \frac{AC}{2} \qquad EF := \frac{EJ - AB}{2}$$

$$TU := \frac{N_4}{N_3 + N_4} \qquad BU := N_5 \cdot TU$$

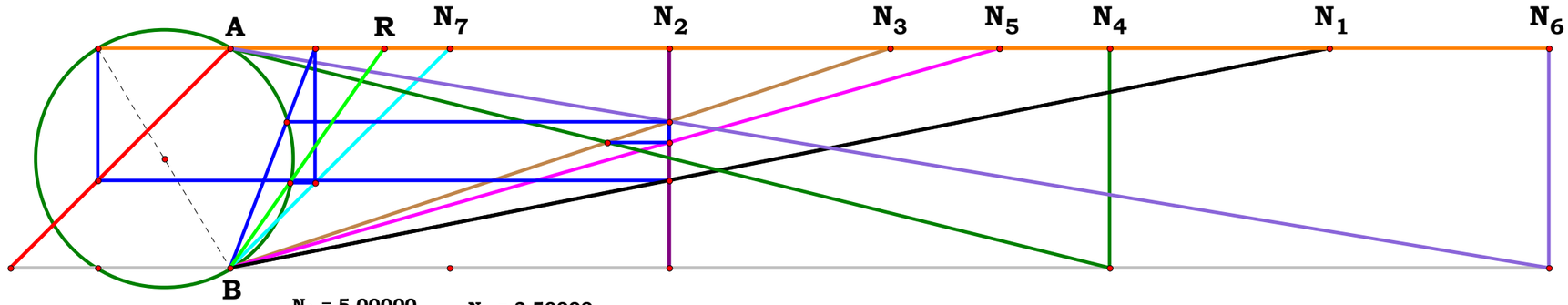
$$SU := \frac{N_6 - BU}{N_6} \qquad GJ := SU + EF$$

$$GK := \sqrt{GJ \cdot (EJ - GJ)} \qquad AQ := \frac{GK - AF}{SU}$$

$$PV := \frac{AQ}{N_7} \qquad HJ := PV + EF$$

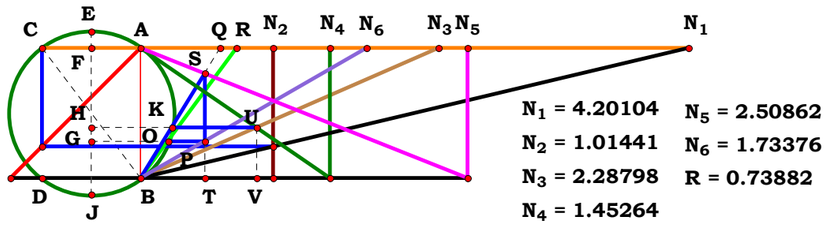
$$HO := \sqrt{HJ \cdot (EJ - HJ)} \qquad R := \frac{HO - AF}{PV}$$

$R = 0.880317$



$N_1 = 5.00000$ $N_5 = 3.50000$ $AB = 1.00000$ $EF = 0.08310$ $GJ = 0.74976$ $HJ = 0.47125$
$N_2 = 2.00000$ $N_6 = 6.00000$ $AC = 0.60000$ $TU = 0.57143$ $GK = 0.55877$ $HO = 0.57227$
$N_3 = 3.00000$ $N_7 = 1.00000$ $EJ = 1.16619$ $BU = 2.00000$ $AQ = 0.38815$ $R - \frac{HO - AF}{PV} = 0.00000$
$N_4 = 4.00000$ $R = 0.70144$ $AF = 0.30000$ $SU = 0.66667$ $PV = 0.38815$

4RST6AB1R2



$N_1 = 4.20104$ $N_5 = 2.50862$
$N_2 = 1.01441$ $N_6 = 1.73376$
$N_3 = 2.28798$ $R = 0.73882$
$N_4 = 1.45264$

Unit. $AB := 1$ **Given.** $N_1 := 4.20104$ $N_2 := 1.01441$ $N_3 := 2.28798$
$N_4 := 1.45264$ $N_5 := 2.50862$ $N_6 := 1.73376$

Descriptions.

$$AC := \frac{N_1 - N_2}{N_1} \qquad EJ := \sqrt{AB^2 + AC^2}$$

$$AF := \frac{AC}{2} \qquad EF := \frac{EJ - AB}{2}$$

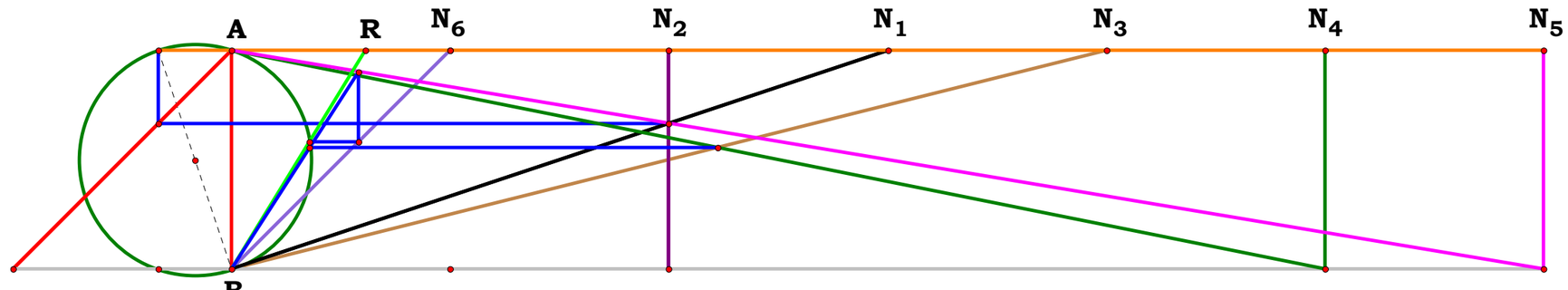
$$UV := \frac{N_4}{N_3 + N_4} \qquad HJ := UV + EF$$

$$HK := \sqrt{HJ \cdot (EJ - HJ)} \qquad AQ := \frac{HK - AF}{UV}$$

$$BT := \frac{AQ \cdot N_5}{AQ + N_5} \qquad PT := \frac{BT}{N_6}$$

$$GJ := PT + EF \qquad GO := \sqrt{GJ \cdot (EJ - GJ)}$$

$$R := \frac{GO - AF}{PT} \qquad R = 0.738818$$



$N_1 = 3.00000$ $N_4 = 5.00000$ $AB = 1.00000$ $EF = 0.02705$ $AQ = 0.64340$ $GO = 0.52077$
$N_2 = 2.00000$ $N_5 = 6.00000$ $AC = 0.33333$ $UV = 0.55556$ $BT = 0.58109$ $R\text{-}\frac{GO\text{-}AF}{PT} = 0.00000$
$N_3 = 4.00000$ $N_6 = 1.00000$ $EJ = 1.05409$ $HJ = 0.58260$ $PT = 0.58109$
$R = 0.60938$ $AF = 0.16667$ $HK = 0.52411$ $GJ = 0.60813$

Definitions.

$$A := \left(2 \cdot N_5 - N_6 + N_6 \cdot \sqrt{AC^2 + 1}\right) \cdot (N_3 + N_4) \cdot AC - 2 \cdot N_4 \cdot N_5 \cdot N_6 \cdot \left(\sqrt{AC^2 + 1} - 1\right)$$

$$B := \left(N_6 - 2 \cdot N_5 + N_6 \cdot \sqrt{AC^2 + 1}\right) \cdot (N_3 + N_4) \cdot AC - 2 \cdot N_4 \cdot N_5 \cdot N_6 \cdot \left(\sqrt{AC^2 + 1} + 1\right)$$

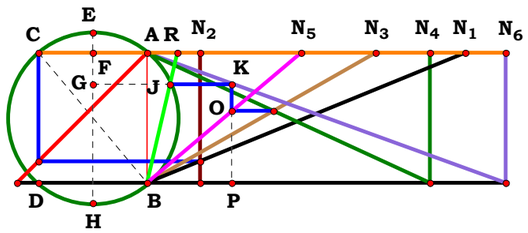
$$C := \left(2 \cdot N_5 - N_6 + N_6 \cdot \sqrt{AC^2 + 1}\right) \cdot (N_3 + N_4)$$

$$D := \left(N_6 - 2 \cdot N_5 + N_6 \cdot \sqrt{AC^2 + 1}\right) \cdot (N_3 + N_4) \qquad P := \sqrt{(N_3 + N_4)^2 \cdot AC^2 + 4 \cdot N_3 \cdot N_4}$$

$$X := \sqrt{\left[A \cdot \sqrt{(N_3 + N_4)^2} - C \cdot P\right] \cdot \left[B \cdot \sqrt{(N_3 + N_4)^2} - D \cdot P\right]} \qquad Y := \sqrt{16 \cdot N_6^2 \cdot \left[P \cdot (N_3 + N_4) + \left[2 \cdot N_4 \cdot N_5 - AC \cdot (N_3 + N_4)\right] \cdot \sqrt{(N_3 + N_4)^2}\right]^2}$$

$$R - \frac{N_6 \cdot (AC \cdot Y - 4 \cdot X) \cdot \left[\left[AC \cdot \sqrt{(N_3 + N_4)^2} - P\right] \cdot (N_3 + N_4) - 2 \cdot N_4 \cdot N_5 \cdot \sqrt{(N_3 + N_4)^2}\right]}{2 \cdot N_5 \cdot Y \cdot \left[P - AC \cdot \sqrt{(N_3 + N_4)^2}\right] \cdot (N_3 + N_4)} = 0$$

4RST6AB1R3



$N_1 = 2.43822$
$N_2 = 0.40421$
$N_3 = 1.75526$
$N_4 = 2.16939$
$N_5 = 1.18167$
$N_6 = 2.75076$
$R = 0.23441$

Unit. $AB := 1$ **Given.** $N_1 := 2.43822$ $N_2 := .40421$ $N_3 := 1.75526$

$N_4 := 2.16939$ $N_5 := 1.18167$ $N_6 := 2.75076$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $F := \frac{N_u}{N_6}$

$U := 18$ $V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$k := \frac{U}{N_1}$ $l := \frac{V}{N_2}$ $m := \frac{W}{N_3}$ $n := \frac{X}{N_4}$ $o := \frac{Y}{N_5}$ $p := \frac{Z}{N_6}$

Descriptions.

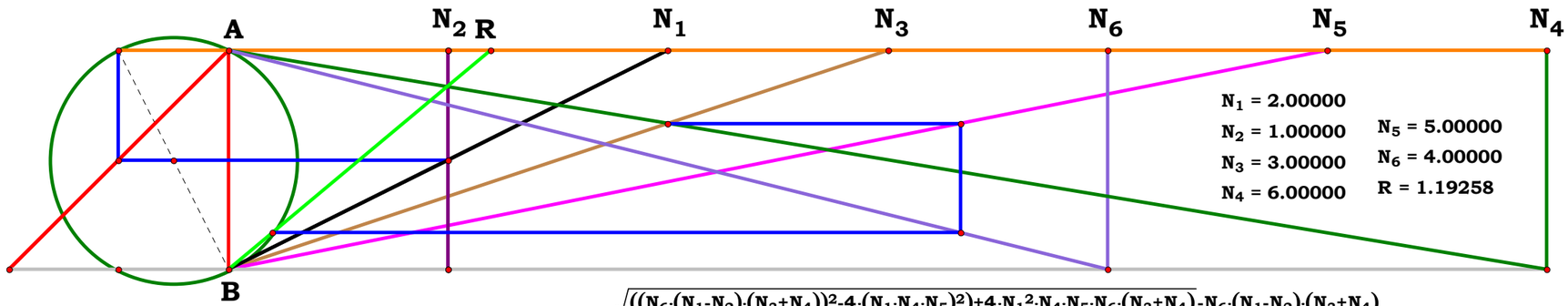
$AC := \frac{N_1 - N_2}{N_1}$ $EH := \sqrt{AB^2 + AC^2}$ $EF := \frac{EH - AB}{2}$

$AF := \frac{AC}{2}$ $OP := \frac{N_4}{N_3 + N_4}$ $BP := N_5 \cdot OP$

$KP := AB - \frac{BP}{N_6}$ $GH := KP + EF$

$GJ := \sqrt{GH \cdot (EH - GH)}$ $R := \frac{GJ - AF}{KP}$

$R = 0.234414$



$N_1 = 2.00000$
$N_2 = 1.00000$
$N_3 = 3.00000$
$N_4 = 6.00000$
$N_5 = 5.00000$
$N_6 = 4.00000$
$R = 1.19258$

$$\frac{\sqrt{((N_6 \cdot (N_1 - N_2) \cdot (N_3 + N_4))^2 - 4 \cdot (N_1 \cdot N_4 \cdot N_5)^2) + 4 \cdot N_1^2 \cdot N_4 \cdot N_5 \cdot N_6 \cdot (N_3 + N_4)} - N_6 \cdot (N_1 - N_2) \cdot (N_3 + N_4)}{2 \cdot N_1 \cdot ((N_3 \cdot N_6 - N_4 \cdot N_5) + N_4 \cdot N_6)} - R = 0.00000$$

Definitions.

$$R - \frac{\sqrt{N_6^2 \cdot (N_3 + N_4)^2 \cdot (N_1 - N_2)^2 - 4 \cdot N_1^2 \cdot N_4^2 \cdot N_5^2 + 4 \cdot N_1^2 \cdot N_4 \cdot N_5 \cdot N_6 \cdot (N_3 + N_4)} - N_6 \cdot (N_3 + N_4) \cdot (N_1 - N_2)}{2 \cdot N_1 \cdot (N_3 \cdot N_6 - N_4 \cdot N_5 + N_4 \cdot N_6)} = 0$$

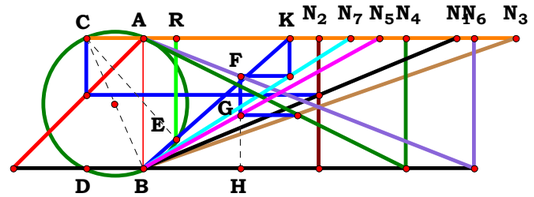
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$ $N_6 - \frac{N_u}{F} = 0$

$$R - \frac{\sqrt{E^2 \cdot (C + D)^2 \cdot (A - B)^2 - 4 \cdot B^2 \cdot C^2 \cdot F^2 + 4 \cdot B^2 \cdot C \cdot E \cdot F \cdot (C + D)} + E \cdot (C + D) \cdot (A - B)}{2 \cdot B \cdot (C \cdot E - C \cdot F + D \cdot E)} = 0$$

$N_1 - \frac{U}{k} = 0$ $N_2 - \frac{V}{l} = 0$ $N_3 - \frac{W}{m} = 0$ $N_4 - \frac{X}{n} = 0$ $N_5 - \frac{Y}{o} = 0$ $N_6 - \frac{Z}{p} = 0$

$$R - \frac{\sqrt{Z^2 \cdot o^2 \cdot (W \cdot n + X \cdot m)^2 \cdot (U \cdot l - V \cdot k)^2 + 4 \cdot Z \cdot U^2 \cdot X \cdot Y \cdot l^2 \cdot m \cdot o \cdot p \cdot (W \cdot n + X \cdot m) - 4 \cdot U^2 \cdot X^2 \cdot Y^2 \cdot l^2 \cdot m^2 \cdot p^2} - Z \cdot o \cdot (W \cdot n + X \cdot m) \cdot (U \cdot l - V \cdot k)}{2 \cdot U \cdot l \cdot (W \cdot Z \cdot n \cdot o - X \cdot Y \cdot m \cdot p + X \cdot Z \cdot m \cdot o)} = 0$$

4RST6AB1R4



$N_1 = 2.39948$
$N_2 = 1.34373$
$N_3 = 2.85944$
$N_4 = 2.01441$
$N_5 = 1.81124$
$N_6 = 2.53768$
$N_7 = 1.58847$
$R = 0.25202$

Unit. $AB := 1$ **Given.** $N_1 := 2.39938$ $N_2 := 1.34373$ $N_3 := 2.85944$ $N_4 := 2.01441$

$N_5 := 1.81124$ $N_6 := 2.53768$ $N_7 := 1.58847$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $F := \frac{N_u}{N_6}$ $G := \frac{N_u}{N_7}$

$T := 19$ $U := 18$ $V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$j := \frac{T}{N_1}$ $k := \frac{U}{N_2}$ $l := \frac{V}{N_3}$ $m := \frac{W}{N_4}$ $n := \frac{X}{N_5}$ $o := \frac{Y}{N_6}$ $p := \frac{Z}{N_7}$

Descriptions.

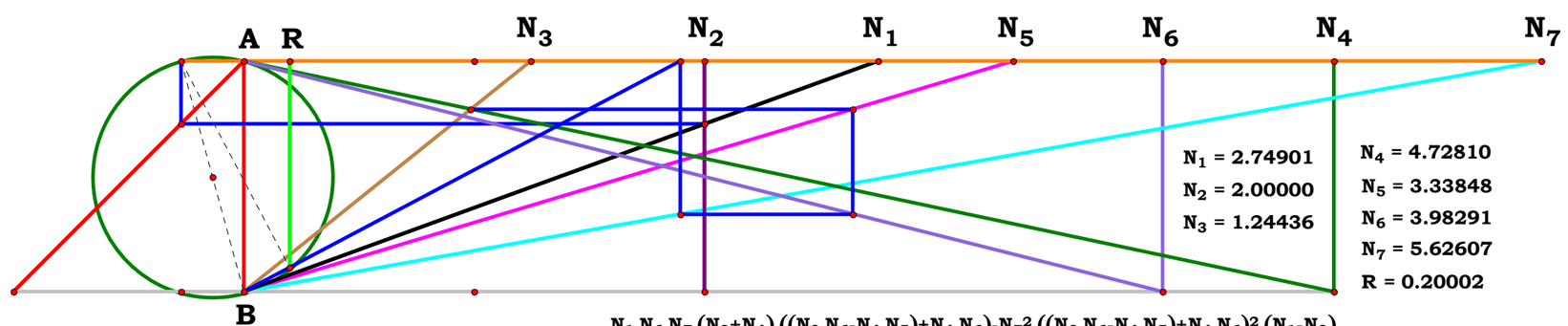
$AC := \frac{N_1 - N_2}{N_1}$ $GH := \frac{N_4}{N_3 + N_4}$

$BH := N_5 \cdot GH$ $FH := \frac{N_6 - BH}{N_6}$

$AK := N_7 \cdot FH$ $BK := \sqrt{AK^2 + AB^2}$

$CK := AK + AC$ $EK := \frac{AK \cdot CK}{BK}$

$R := AK \cdot \frac{(BK - EK)}{BK}$ $R = 0.252028$



$N_1 = 2.74901$
$N_2 = 2.00000$
$N_3 = 1.24436$
$N_4 = 4.72810$
$N_5 = 3.33848$
$N_6 = 3.98291$
$N_7 = 5.62607$
$R = 0.20002$

$$\frac{N_1 \cdot N_6 \cdot N_7 \cdot (N_3+N_4) \cdot ((N_3 \cdot N_6 - N_4 \cdot N_5) + N_4 \cdot N_6) - N_7^2 \cdot ((N_3 \cdot N_6 - N_4 \cdot N_5) + N_4 \cdot N_6)^2 \cdot (N_1 - N_2)}{N_1 \cdot N_7^2 \cdot ((N_3 \cdot N_6 - N_4 \cdot N_5) + N_4 \cdot N_6)^2 + N_1 \cdot N_6^2 \cdot (N_3 + N_4)^2} - R = 0.00000$$

Definitions.

$$R - \frac{N_7 \cdot \left[N_6 \cdot (N_3 + N_4)\right] \cdot (N_3 \cdot N_6 - N_4 \cdot N_5 + N_4 \cdot N_6) - \left(AC \cdot N_7^2\right) \cdot (N_3 \cdot N_6 - N_4 \cdot N_5 + N_4 \cdot N_6)^2}{(N_3 \cdot N_6 - N_4 \cdot N_5 + N_4 \cdot N_6)^2 \cdot N_7^2 + N_6^2 \cdot (N_3 + N_4)^2} = 0$$

$$R - \frac{N_1 \cdot N_6 \cdot N_7 \cdot (N_3 + N_4) \cdot (N_3 \cdot N_6 - N_4 \cdot N_5 + N_4 \cdot N_6) - N_7^2 \cdot (N_3 \cdot N_6 - N_4 \cdot N_5 + N_4 \cdot N_6)^2 \cdot (N_1 - N_2)}{N_1 \cdot N_7^2 \cdot (N_3 \cdot N_6 - N_4 \cdot N_5 + N_4 \cdot N_6)^2 + N_1 \cdot N_6^2 \cdot (N_3 + N_4)^2} = 0$$

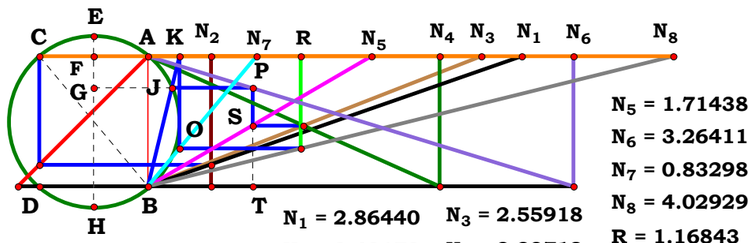
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$ $N_6 - \frac{N_u}{F} = 0$ $N_7 - \frac{N_u}{G} = 0$

$$R - \frac{N_u \cdot [C \cdot (E - F) + D \cdot E] \cdot \left[E \cdot (C + D) \cdot \left[B \cdot G + N_u \cdot (A - B)\right] - C \cdot F \cdot N_u \cdot (A - B)\right]}{B \cdot \left[E^2 \cdot \left(G^2 + N_u^2\right) \cdot (C + D)^2 - 2 \cdot E \cdot C \cdot F \cdot N_u^2 \cdot (C + D) + C^2 \cdot F^2 \cdot N_u^2\right]} = 0$$

$N_1 - \frac{T}{j} = 0$ $N_2 - \frac{U}{k} = 0$ $N_3 - \frac{V}{l} = 0$ $N_4 - \frac{W}{m} = 0$ $N_5 - \frac{X}{n} = 0$ $N_6 - \frac{Y}{o} = 0$ $N_7 - \frac{Z}{p} = 0$

$$R - \frac{Z \cdot T \cdot Y \cdot k \cdot n \cdot p \cdot (V \cdot m + W \cdot l) \cdot (V \cdot Y \cdot m \cdot n - W \cdot X \cdot l \cdot o + W \cdot Y \cdot l \cdot n) - Z^2 \cdot (T \cdot k - U \cdot j) \cdot (V \cdot Y \cdot m \cdot n - W \cdot X \cdot l \cdot o + W \cdot Y \cdot l \cdot n)^2}{Z^2 \cdot T \cdot k \cdot (V \cdot Y \cdot m \cdot n - W \cdot X \cdot l \cdot o + W \cdot Y \cdot l \cdot n)^2 + T \cdot Y^2 \cdot k \cdot n^2 \cdot p^2 \cdot (V \cdot m + W \cdot l)^2} = 0$$

4RST6AB1R5



Unit. $AB := 1$ Given. $N_1 := 2.86440$ $N_2 := .48170$ $N_3 := 2.55918$ $N_4 := 2.23719$

$N_5 := 1.71438$ $N_6 := 3.26411$ $N_7 := .83298$ $N_8 := 4.02929$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $F := \frac{N_u}{N_6}$ $G := \frac{N_u}{N_7}$ $H := \frac{N_u}{N_8}$

$S := 20$ $T := 19$ $U := 18$ $V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$h := \frac{S}{N_1}$ $j := \frac{T}{N_2}$ $k := \frac{Y}{N_3}$ $l := \frac{V}{N_4}$ $m := \frac{W}{N_5}$ $n := \frac{X}{N_6}$ $o := \frac{Y}{N_7}$ $p := \frac{Z}{N_8}$

Descriptions.

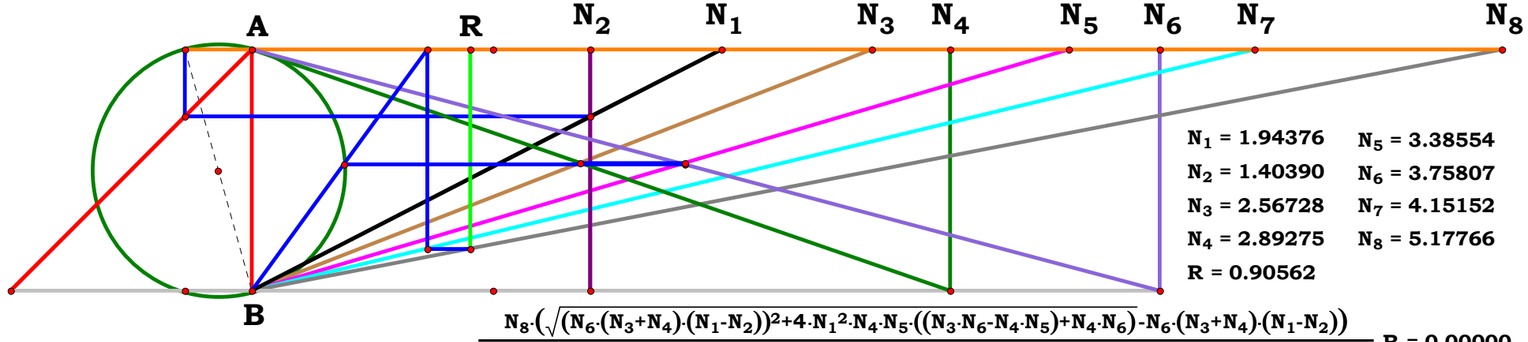
$AC := \frac{N_1 - N_2}{N_1}$ $EH := \sqrt{AB^2 + AC^2}$ $AF := \frac{AC}{2}$

$EF := \frac{EH - AB}{2}$ $ST := \frac{N_4}{N_3 + N_4}$ $BT := N_5 \cdot ST$

$PT := \frac{N_6 - BT}{N_6}$ $GH := PT + EF$ $GJ := \sqrt{GH \cdot (EH - GH)}$

$AK := \frac{(GJ - AF)}{PT}$ $KO := \frac{N_7 - AK}{N_7}$ $R := N_8 \cdot (AB - KO)$

$R = 1.168423$



$$\frac{N_8\cdot\left(\sqrt{(N_6\cdot(N_3+N_4)\cdot(N_1-N_2))^2+4\cdot N_1{}^2\cdot N_4\cdot N_5\cdot((N_3\cdot N_6-N_4\cdot N_5)+N_4\cdot N_6)}-N_6\cdot(N_3+N_4)\cdot(N_1-N_2)\right)}{2\cdot N_1\cdot N_7\cdot((N_3\cdot N_6-N_4\cdot N_5)+N_4\cdot N_6)}-R = 0.00000$$

Definitions.

$$R - \frac{N_6\cdot N_8\cdot(N_3+N_4)\cdot\left[\sqrt{N_6{}^2\cdot(N_3+N_4)^2\cdot AC^2+4\cdot N_4\cdot N_5\cdot(N_3\cdot N_6-N_4\cdot N_5+N_4\cdot N_6)}-AC\cdot\sqrt{N_6{}^2\cdot(N_3+N_4)^2}\right]}{2\cdot N_7\cdot(N_3\cdot N_6-N_4\cdot N_5+N_4\cdot N_6)\cdot\sqrt{N_6{}^2\cdot(N_3+N_4)^2}} = 0$$

$$R - \frac{N_8\cdot\left[\sqrt{N_6{}^2\cdot(N_3+N_4)^2\cdot(N_1-N_2)^2+4\cdot N_1{}^2\cdot N_4\cdot N_5\cdot(N_3\cdot N_6-N_4\cdot N_5+N_4\cdot N_6)}-N_6\cdot(N_3+N_4)\cdot(N_1-N_2)\right]}{2\cdot N_1\cdot N_7\cdot(N_3\cdot N_6-N_4\cdot N_5+N_4\cdot N_6)} = 0$$

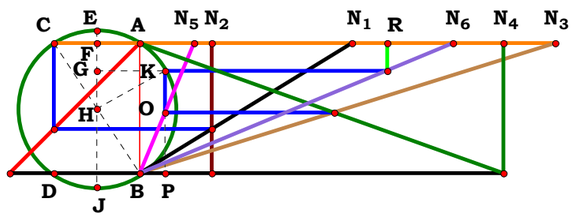
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$ $N_6 - \frac{N_u}{F} = 0$ $N_7 - \frac{N_u}{G} = 0$ $N_8 - \frac{N_u}{H} = 0$

$$R - \frac{G\cdot\left[\sqrt{E^2\cdot(C+D)^2\cdot(A-B)^2-4\cdot B^2\cdot C^2\cdot F^2+4\cdot B^2\cdot C\cdot E\cdot F\cdot(C+D)}+E\cdot(C+D)\cdot(A-B)\right]}{2\cdot B\cdot H\cdot[C\cdot(E-F)+D\cdot E]} = 0$$

$N_1 - \frac{S}{h} = 0$ $N_2 - \frac{T}{j} = 0$ $N_3 - \frac{U}{k} = 0$ $N_4 - \frac{V}{l} = 0$ $N_5 - \frac{W}{m} = 0$ $N_6 - \frac{X}{n} = 0$ $N_7 - \frac{Y}{o} = 0$ $N_8 - \frac{Z}{p} = 0$

$$R - \frac{Z\cdot o\cdot\left[\sqrt{4\cdot W\cdot S^2\cdot V\cdot X\cdot j^2\cdot k\cdot m\cdot n\cdot(U\cdot l+V\cdot k)-4\cdot S^2\cdot V^2\cdot j^2\cdot k^2\cdot n^2\cdot W^2+X^2\cdot m^2\cdot(U\cdot l+V\cdot k)^2\cdot(S\cdot j-T\cdot h)^2}+X\cdot m\cdot(U\cdot l+V\cdot k)\cdot(T\cdot h-S\cdot j)\right]}{2\cdot S\cdot Y\cdot j\cdot p\cdot(U\cdot X\cdot l\cdot m-V\cdot W\cdot k\cdot n+V\cdot X\cdot k\cdot m)} = 0$$

4RST6AB1R6



$N_1 = 1.62462$
$N_2 = 0.54950$
$N_3 = 3.18876$
$N_4 = 2.78928$
$N_5 = 0.41649$
$N_6 = 2.40207$
$R = 1.89571$

Unit. $AB := 1$ Given. $N_1 := 1.62462$ $N_2 := .54950$ $N_3 := 3.18875$

$N_4 := 2.78928$ $N_5 := .41649$ $N_6 := 2.40207$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $F := \frac{N_u}{N_6}$

$U := 18$ $V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$k := \frac{U}{N_1}$ $l := \frac{V}{N_2}$ $m := \frac{W}{N_3}$ $n := \frac{X}{N_4}$ $o := \frac{Y}{N_5}$ $p := \frac{Z}{N_6}$

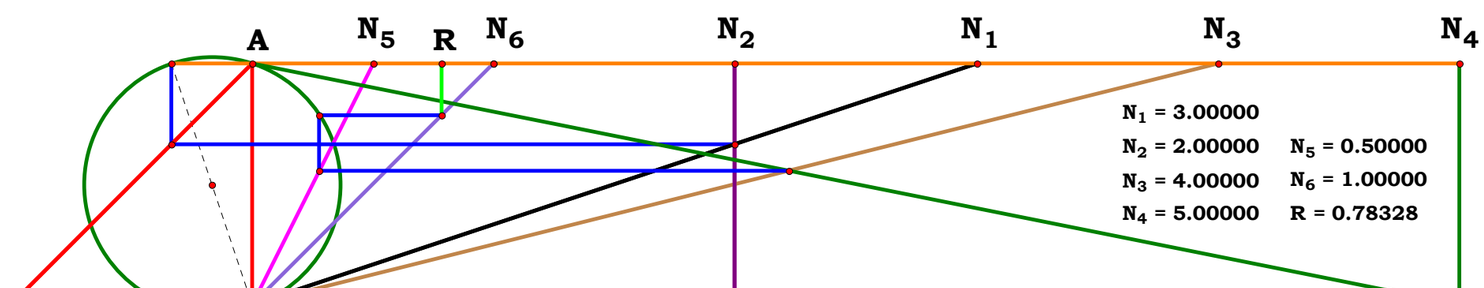
Descriptions.

$AC := \frac{N_1 - N_2}{N_1}$ $EJ := \sqrt{AB^2 + AC^2}$ $AF := \frac{AC}{2}$

$EF := \frac{EJ - AB}{2}$ $HK := \frac{EJ}{2}$ $OP := \frac{N_4}{N_3 + N_4}$

$BP := N_5 \cdot OP$ $GK := AF + BP$ $GH := \sqrt{HK^2 - GK^2}$

$KP := GH + HK - EF$ $R := N_6 \cdot KP$ $R = 1.895708$



$N_1 = 3.00000$
$N_2 = 2.00000$ $N_5 = 0.50000$
$N_3 = 4.00000$ $N_6 = 1.00000$
$N_4 = 5.00000$ $R = 0.78328$

Definitions.

B

$$R - \frac{N_6 \cdot \left[\sqrt{(N_3+N_4)^2 - 4 \cdot N_4 \cdot N_5 \cdot \left[AC \cdot (N_3+N_4) + N_4 \cdot N_5\right]} + \sqrt{(N_3+N_4)^2}\right]}{2 \cdot \sqrt{(N_3+N_4)^2}} = 0$$

$$\frac{N_6 \cdot \left(\sqrt{N_1} \cdot (N_3+N_4) + \sqrt{(N_3+N_4) \cdot (N_1 \cdot (N_3+N_4) + 4 \cdot N_2 \cdot N_4 \cdot N_5) - 4 \cdot N_1 \cdot N_4 \cdot N_5 \cdot ((N_3+N_4) + N_4 \cdot N_5)}\right)}{2 \cdot \sqrt{N_1} \cdot (N_3+N_4)} - R = 0.00000$$

$$R - \frac{N_6 \cdot \left[\sqrt{N_1} \cdot (N_3+N_4) + \sqrt{\left[N_1 \cdot (N_3+N_4) + 4 \cdot N_2 \cdot N_4 \cdot N_5\right] \cdot (N_3+N_4) - 4 \cdot N_1 \cdot N_4 \cdot N_5 \cdot (N_3+N_4+N_4 \cdot N_5)}\right]}{2 \cdot \sqrt{N_1} \cdot (N_3+N_4)} = 0$$

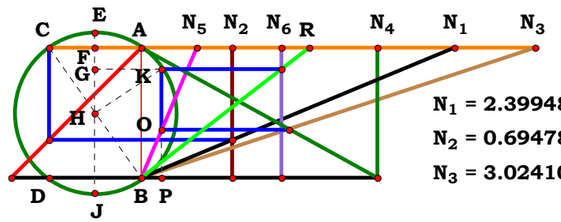
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$ $N_6 - \frac{N_u}{F} = 0$

$$R - \frac{\sqrt{N_u} \cdot \left[\sqrt{N_u \cdot \left[B \cdot E^2 \cdot (C+D)^2 - 4 \cdot B \cdot C^2 \cdot N_u^2 + 4 \cdot C \cdot E \cdot N_u \cdot (C+D) \cdot (A-B)\right]} + \sqrt{B} \cdot \sqrt{N_u} \cdot E \cdot (C+D)\right]}{2 \cdot F \cdot (C+D) \cdot \sqrt{B} \cdot E} = 0$$

$N_1 - \frac{U}{k} = 0$ $N_2 - \frac{V}{l} = 0$ $N_3 - \frac{W}{m} = 0$ $N_4 - \frac{X}{n} = 0$ $N_5 - \frac{Y}{o} = 0$ $N_6 - \frac{Z}{p} = 0$

$$R - \frac{Z \cdot \left[\sqrt{k} \cdot \sqrt{U \cdot l \cdot o^2 \cdot (W \cdot n + X \cdot m)^2 - 4 \cdot X \cdot Y \cdot m \cdot o \cdot (U \cdot l - V \cdot k) \cdot (W \cdot n + X \cdot m) - 4 \cdot U \cdot X^2 \cdot l \cdot m^2 \cdot Y^2} + \sqrt{k \cdot l} \cdot \sqrt{U} \cdot o \cdot (W \cdot n + X \cdot m)\right]}{2 \cdot \sqrt{U} \cdot p \cdot (W \cdot n + X \cdot m) \cdot \sqrt{k \cdot l} \cdot o} = 0$$

4RST6AB1R7



$N_4 = 1.81101$ $N_5 = 0.42617$
$N_1 = 2.39948$ $N_6 = 1.07512$
$N_2 = 0.69478$ $R = 1.29014$
$N_3 = 3.02410$

Unit. $AB := 1$ Given. $N_1 := 2.39948$ $N_2 := .69478$ $N_3 := 3.02410$

$N_4 := 1.81101$ $N_5 := .42617$ $N_6 := 1.07512$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $F := \frac{N_u}{N_6}$

$U := 18$ $V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$k := \frac{U}{N_1}$ $l := \frac{V}{N_2}$ $m := \frac{W}{N_3}$ $n := \frac{X}{N_4}$ $o := \frac{Y}{N_5}$ $p := \frac{Z}{N_6}$

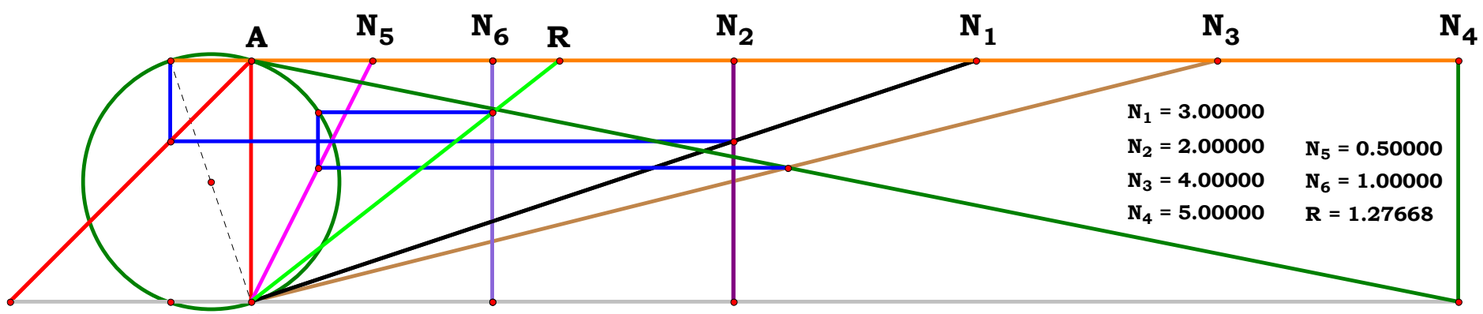
Descriptions.

$AC := \frac{N_1 - N_2}{N_1}$ $EJ := \sqrt{AB^2 + AC^2}$ $AF := \frac{AC}{2}$

$EF := \frac{EJ - AB}{2}$ $HK := \frac{EJ}{2}$ $OP := \frac{N_4}{N_3 + N_4}$

$BP := N_5 \cdot OP$ $GK := AF + BP$ $GH := \sqrt{HK^2 - GK^2}$

$KP := GH + HK - EF$ $R := \frac{N_6}{KP}$ $R = 1.290132$



$N_1 = 3.00000$ $N_5 = 0.50000$
$N_2 = 2.00000$ $N_6 = 1.00000$
$N_3 = 4.00000$ $R = 1.27668$
$N_4 = 5.00000$

Definitions.

$$R - \frac{2 \cdot N_6 \cdot \sqrt{(N_3 + N_4)^2}}{\sqrt{(N_3 + N_4)^2 - 4 \cdot N_4^2 \cdot N_5^2 - 4 \cdot N_4 \cdot N_5 \cdot (N_3 + N_4) \cdot AC} + \sqrt{(N_3 + N_4)^2}} = 0$$

$$R - \frac{2 \cdot \sqrt{N_1} \cdot N_6 \cdot (N_3 + N_4)}{\sqrt{N_1} \cdot (N_3 + N_4) + \sqrt{N_1 \cdot (N_3 + N_4)^2 - 4 \cdot N_1 \cdot N_4^2 \cdot N_5^2 - 4 \cdot N_4 \cdot N_5 \cdot (N_3 + N_4) \cdot (N_1 - N_2)}} = 0$$

$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$ $N_6 - \frac{N_u}{F} = 0$

$$R - \frac{2 \cdot \left(\sqrt{N_u}\right)^3 \cdot (C + D) \cdot \sqrt{B} \cdot E}{F \cdot \left[\sqrt{N_u \cdot \left[B \cdot E^2 \cdot (C + D)^2 - 4 \cdot B \cdot C^2 \cdot N_u^2 + 4 \cdot C \cdot E \cdot N_u \cdot (C + D) \cdot (A - B)\right]} + \sqrt{B} \cdot \sqrt{N_u} \cdot E \cdot (C + D)\right]} = 0$$

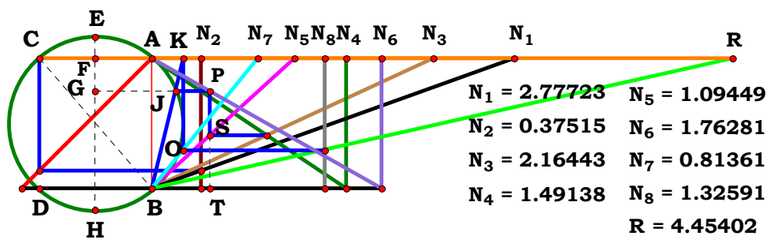
$N_1 - \frac{U}{k} = 0$ $N_2 - \frac{V}{l} = 0$ $N_3 - \frac{W}{m} = 0$ $N_4 - \frac{X}{n} = 0$ $N_5 - \frac{Y}{o} = 0$ $N_6 - \frac{Z}{p} = 0$

$$R - \frac{2 \cdot \sqrt{U} \cdot Z \cdot (W \cdot n + X \cdot m) \cdot \sqrt{k \cdot l} \cdot o}{p \cdot \left[\sqrt{k} \cdot \sqrt{U \cdot l \cdot o^2 \cdot (W \cdot n + X \cdot m)^2 - 4 \cdot Y \cdot X \cdot m \cdot o \cdot (W \cdot n + X \cdot m) \cdot (U \cdot l - V \cdot k) - 4 \cdot U \cdot X^2 \cdot l \cdot m^2 \cdot Y^2} + \sqrt{k \cdot l} \cdot \sqrt{U} \cdot o \cdot (W \cdot n + X \cdot m)\right]} = 0$$

B

$$\frac{2 \cdot N_6 \cdot \sqrt{N_1} \cdot (N_3 + N_4)}{\sqrt{N_1} \cdot (N_3 + N_4) + \sqrt{N_1 \cdot (N_3 + N_4)^2 - 4 \cdot N_1 \cdot N_4^2 \cdot N_5^2 - 4 \cdot N_4 \cdot N_5 \cdot (N_3 + N_4) \cdot (N_1 - N_2)}} - R = 0.00000$$

4RST6AB1R8



$N_1 = 2.77723$ $N_5 = 1.09449$
$N_2 = 0.37515$ $N_6 = 1.76281$
$N_3 = 2.16443$ $N_7 = 0.81361$
$N_4 = 1.49138$ $N_8 = 1.32591$
$R = 4.45402$

Descriptions.

$AC := \frac{N_1 - N_2}{N_1}$ $EH := \sqrt{AB^2 + AC^2}$ $AF := \frac{AC}{2}$

$EF := \frac{EH - AB}{2}$ $ST := \frac{N_4}{N_3 + N_4}$ $BT := N_5 \cdot ST$

$PT := \frac{N_6 - BT}{N_6}$ $GH := PT + EF$ $GJ := \sqrt{GH \cdot (EH - GH)}$

$AK := \frac{GJ - AF}{PT}$ $KO := \frac{N_7 - AK}{N_7}$ $R := \frac{N_{.8}}{AB - KO}$

$R = 4.454068$

Definitions.

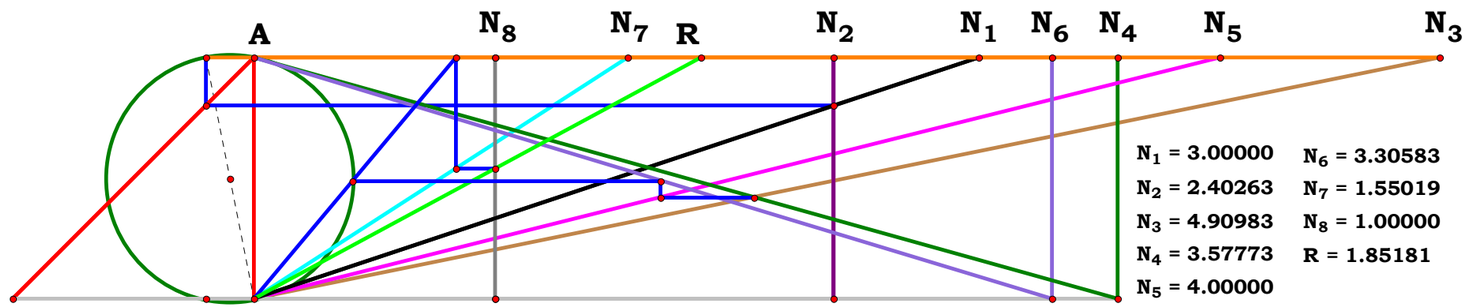
Unit. $AB := 1$ Given. $N_1 := 2.77723$ $N_2 := .37515$ $N_3 := 2.16443$ $N_4 := 1.49138$

$N_5 := 1.09449$ $N_6 := 1.76281$ $N_7 := .81361$ $N_8 := 1.32591$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $F := \frac{N_u}{N_6}$ $G := \frac{N_u}{N_7}$ $H := \frac{N_u}{N_8}$

$S := 20$ $T := 19$ $U := 18$ $V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$h := \frac{S}{N_1}$ $j := \frac{T}{N_2}$ $k := \frac{Y}{N_3}$ $l := \frac{V}{N_4}$ $m := \frac{W}{N_5}$ $n := \frac{X}{N_6}$ $o := \frac{Y}{N_7}$ $p := \frac{Z}{N_8}$



$N_1 = 3.00000$ $N_6 = 3.30583$
$N_2 = 2.40263$ $N_7 = 1.55019$
$N_3 = 4.90983$ $N_8 = 1.00000$
$N_4 = 3.57773$ $R = 1.85181$
$N_5 = 4.00000$

$$R - \frac{2 \cdot N_7 \cdot N_8 \cdot \left(N_3 \cdot N_6 - N_4 \cdot N_5 + N_4 \cdot N_6\right) \cdot \sqrt{\left[N_6 \cdot \left(N_3 + N_4\right)\right]^2}}{N_6 \cdot \left(N_3 + N_4\right) \cdot \left[\sqrt{AC^2 \cdot \left[N_6^2 \cdot \left(N_3 + N_4\right)^2\right] + 4 \cdot N_4 \cdot N_5 \cdot \left(N_3 \cdot N_6 - N_4 \cdot N_5 + N_4 \cdot N_6\right)} - AC \cdot \sqrt{\left[N_6 \cdot \left(N_3 + N_4\right)\right]^2}\right]} = 0$$

$$R - \frac{2 \cdot N_1 \cdot N_7 \cdot N_8 \cdot \left(N_3 \cdot N_6 - N_4 \cdot N_5 + N_4 \cdot N_6\right)}{\sqrt{N_6^2 \cdot \left(N_1 - N_2\right)^2 \cdot \left(N_3 + N_4\right)^2 + 4 \cdot N_1^2 \cdot N_4 \cdot N_5 \cdot \left(N_3 \cdot N_6 - N_4 \cdot N_5 + N_4 \cdot N_6\right)} - N_6 \cdot \left(N_3 + N_4\right) \cdot \left(N_1 - N_2\right)} = 0$$

$$N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0 \quad N_4 - \frac{N_u}{D} = 0 \quad N_5 - \frac{N_u}{E} = 0 \quad N_6 - \frac{N_u}{F} = 0 \quad N_7 - \frac{N_u}{G} = 0 \quad N_8 - \frac{N_u}{H} = 0$$

$$R - \frac{2 \cdot B \cdot N_u^2 \cdot (C \cdot E - C \cdot F + D \cdot E)}{G \cdot H \cdot \left[\sqrt{E^2 \cdot (C + D)^2 \cdot (A - B)^2 - 4 \cdot B^2 \cdot C^2 \cdot F^2 + 4 \cdot B^2 \cdot C \cdot E \cdot F \cdot (C + D)} + E \cdot (C + D) \cdot (A - B)\right]} = 0$$

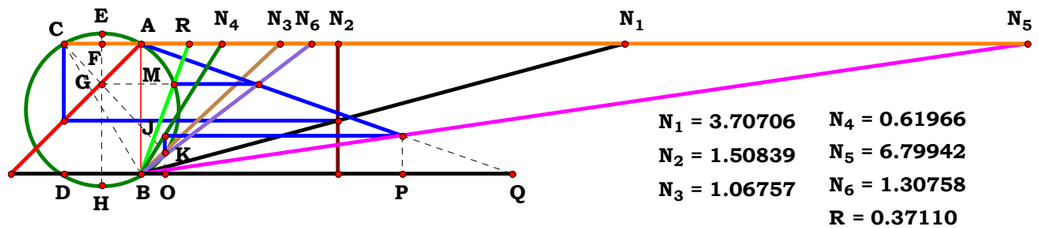
$$N_1 - \frac{S}{h} = 0 \quad N_2 - \frac{T}{j} = 0 \quad N_3 - \frac{U}{k} = 0 \quad N_4 - \frac{V}{l} = 0 \quad N_5 - \frac{W}{m} = 0 \quad N_6 - \frac{X}{n} = 0 \quad N_7 - \frac{Y}{o} = 0 \quad N_8 - \frac{Z}{p} = 0$$

$$R - \frac{2 \cdot N_u \cdot S \cdot Z \cdot j \cdot (U \cdot X \cdot l \cdot m - V \cdot W \cdot k \cdot n + V \cdot X \cdot k \cdot m)}{G \cdot p \cdot \left[\sqrt{X^2 \cdot m^2 \cdot (U \cdot l + V \cdot k)^2 \cdot (S \cdot j - T \cdot h)^2 + 4 \cdot X \cdot S^2 \cdot V \cdot W \cdot j^2 \cdot k \cdot m \cdot n \cdot (U \cdot l + V \cdot k)} - 4 \cdot S^2 \cdot V^2 \cdot W^2 \cdot j^2 \cdot k^2 \cdot n^2 + X \cdot m \cdot (U \cdot l + V \cdot k) \cdot (T \cdot h - S \cdot j)\right]} = 0$$

B

$$\frac{2 \cdot N_1 \cdot N_7 \cdot N_8 \cdot ((N_3 \cdot N_6 - N_4 \cdot N_5) + N_4 \cdot N_6)}{\sqrt{(N_6 \cdot (N_1 - N_2) \cdot (N_3 + N_4))^2 + 4 \cdot N_1^2 \cdot N_4 \cdot N_5 \cdot ((N_3 \cdot N_6 - N_4 \cdot N_5) + N_4 \cdot N_6)} - N_6 \cdot (N_1 - N_2) \cdot (N_3 + N_4)} - R = 0.00000$$

4RST6AB1R9



$N_1 = 3.70706$ $N_4 = 0.61966$
$N_2 = 1.50839$ $N_5 = 6.79942$
$N_3 = 1.06757$ $N_6 = 1.30758$
$R = 0.37110$

Unit. Given. $N_1 := 3.70706$ $N_2 := 1.50839$ $N_3 := 1.06757$

$AB := 1$ $N_4 := .61966$ $N_5 := 6.79942$ $N_6 := 1.30758$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $F := \frac{N_u}{N_6}$

$U := 18$ $V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$k := \frac{U}{N_1}$ $l := \frac{V}{N_2}$ $m := \frac{W}{N_3}$ $n := \frac{X}{N_4}$ $o := \frac{Y}{N_5}$ $p := \frac{Z}{N_6}$

Descriptions.

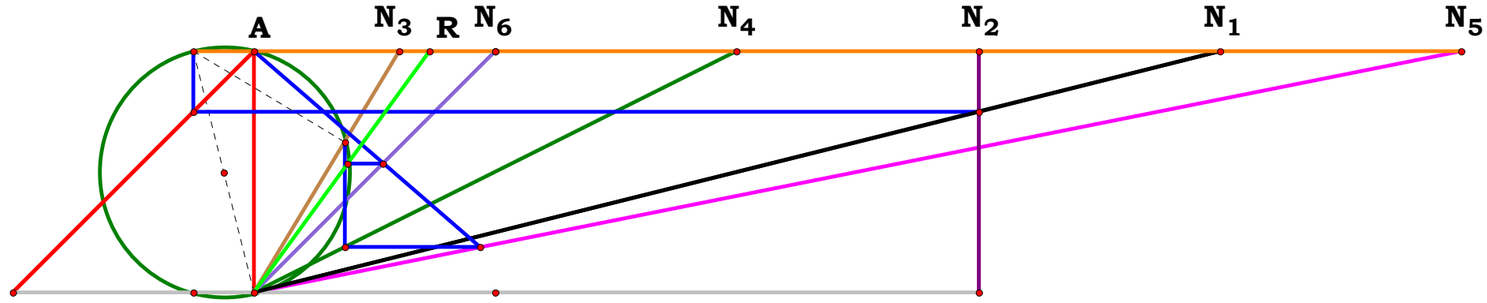
$AC := \frac{N_1 - N_2}{N_1}$ $EH := \sqrt{AB^2 + AC^2}$

$AF := \frac{AC}{2}$ $EF := \frac{EH - AB}{2}$

$BN_3 := \sqrt{N_3^2 + AB^2}$ $CN_3 := N_3 + AC$

$KN_3 := \frac{N_3 \cdot CN_3}{BN_3}$ $BO := \frac{N_3 \cdot (BN_3 - KN_3)}{BN_3}$

$JO := \frac{BO}{N_4}$ $BP := N_5 \cdot JO$



$BQ := \frac{BP \cdot AB}{AB - JO}$ $FG := \frac{N_6}{BQ + N_6}$

$EG := FG + EF$ $GM := \sqrt{EG \cdot (EH - EG)}$

$R := \frac{GM - AF}{AB - FG}$ $R = 0.371102$

B

$N_1 = 4.00000$ $N_4 = 2.00000$ $AB = 1.00000$ $EF = 0.01539$ $BO = 0.37500$ $FG = 0.46429$
$N_2 = 3.00000$ $N_5 = 5.00000$ $AC = 0.25000$ $BN_3 = 1.16619$ $JO = 0.18750$ $EG = 0.47967$
$N_3 = 0.60000$ $N_6 = 1.00000$ $EH = 1.03078$ $CN_3 = 0.85000$ $BP = 0.93750$ $GM = 0.51415$
$R = 0.72641$ $AF = 0.12500$ $KN_3 = 0.43732$ $BQ = 1.15385$ $R - \frac{GM - AF}{AB - FG} = 0.00000$

Definitions.

$$R - \frac{N_1^2 \cdot (N_1 - N_2) \cdot \left[N_6 \cdot \left[N_3^2 \cdot (N_1 - N_2 + N_1 \cdot N_4) - N_1 \cdot (N_3 - N_4)\right] - N_3 \cdot N_5 \cdot (N_1 \cdot N_3 - N_1 - N_2 \cdot N_3)\right] \ldots + -N_1^2 \cdot \sqrt{N_6^2 \cdot (N_1 - N_2)^2 \cdot \left[N_3^2 \cdot (N_1 - N_2 + N_1 \cdot N_4) - N_1 \cdot (N_3 - N_4)\right]^2 + N_3^2 \cdot N_5^2 \cdot (N_1 - N_2)^2 \cdot (N_1 \cdot N_3 - N_1 - N_2 \cdot N_3)^2 \ldots + -2 \cdot N_3 \cdot N_5 \cdot N_6 \cdot (3 \cdot N_1^2 - 2 \cdot N_1 \cdot N_2 + N_2^2) \cdot (N_1 \cdot N_3 - N_1 - N_2 \cdot N_3) \cdot \left[N_3^2 \cdot (N_1 - N_2 + N_1 \cdot N_4) - N_1 \cdot (N_3 - N_4)\right]}}{2 \cdot N_1 \cdot N_3 \cdot N_5 \cdot (N_1 \cdot N_3 - N_1 - N_2 \cdot N_3) \cdot N_1^2} = 0$$

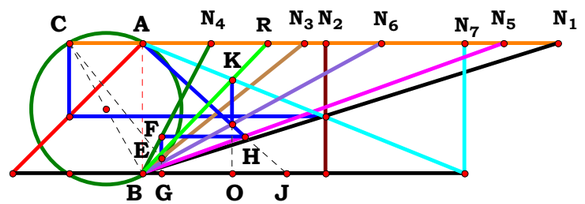
$$N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0 \quad N_4 - \frac{N_u}{D} = 0 \quad N_5 - \frac{N_u}{E} = 0 \quad N_6 - \frac{N_u}{F} = 0$$

$$R - \frac{N_u^4 \cdot \sqrt{\begin{matrix} D^2 \cdot F^2 \cdot \left[B \cdot C + N_u \cdot (A - B)\right]^2 \cdot (A - B)^2 + (A - B)^2 \cdot \left[N_u \cdot D \cdot (A - B) - B \cdot C \cdot (C - D) - B \cdot N_u^2\right]^2 \cdot E^2 \ \ldots \\ + \ -2 \cdot F \cdot D \cdot \left(A^2 - 2 \cdot A \cdot B + 3 \cdot B^2\right) \cdot \left[B \cdot C + N_u \cdot (A - B)\right] \cdot \left[N_u \cdot D \cdot (A - B) - B \cdot C \cdot (C - D) - B \cdot N_u^2\right] \cdot E \end{matrix}} + \left[\begin{matrix} N_u^6 \cdot B \cdot E \cdot (A - B) - N_u^5 \cdot D \cdot (A - B)^2 \cdot (E - F) \ \ldots \\ + \ N_u^4 \cdot B \cdot C \cdot (C \cdot E - D \cdot E + D \cdot F) \cdot (A - B) \end{matrix}\right]}{2 \cdot B \cdot D \cdot F \cdot N_u^4 \cdot \left(B \cdot C + A \cdot N_u - B \cdot N_u\right)} = 0$$

$$N_1 - \frac{U}{k} = 0 \quad N_2 - \frac{V}{l} = 0 \quad N_3 - \frac{W}{m} = 0 \quad N_4 - \frac{X}{n} = 0 \quad N_5 - \frac{Y}{o} = 0 \quad N_6 - \frac{Z}{p} = 0$$

$$R - \frac{N_1^2 \cdot \left(N_1 - N_2\right) \cdot \left[N_6 \cdot \left[N_3^2 \cdot \left(N_1 - N_2 + N_1 \cdot N_4\right) - N_1 \cdot \left(N_3 - N_4\right)\right] - N_3 \cdot N_5 \cdot \left(N_1 \cdot N_3 - N_1 - N_2 \cdot N_3\right)\right] \ \ldots}{+ \ -N_1^2 \cdot \sqrt{\begin{matrix} N_6^2 \cdot \left(N_1 - N_2\right)^2 \cdot \left[N_3^2 \cdot \left(N_1 - N_2 + N_1 \cdot N_4\right) - N_1 \cdot \left(N_3 - N_4\right)\right]^2 + N_3^2 \cdot N_5^2 \cdot \left(N_1 - N_2\right)^2 \cdot \left(N_1 \cdot N_3 - N_1 - N_2 \cdot N_3\right)^2 \ \ldots \\ + \ -2 \cdot N_3 \cdot N_5 \cdot N_6 \cdot \left(3 \cdot N_1^2 - 2 \cdot N_1 \cdot N_2 + N_2^2\right) \cdot \left(N_1 \cdot N_3 - N_1 - N_2 \cdot N_3\right) \cdot \left[N_3^2 \cdot \left(N_1 - N_2 + N_1 \cdot N_4\right) - N_1 \cdot \left(N_3 - N_4\right)\right] \end{matrix}}}{2 \cdot N_1 \cdot N_3 \cdot N_5 \cdot \left(N_1 \cdot N_3 - N_1 - N_2 \cdot N_3\right) \cdot N_1^2} = 0$$

4RST6AB1R10



$N_1 = 3.18403$ $N_3 = 1.24192$ $N_5 = 2.77013$ $N_7 = 2.46987$
$N_2 = 1.40185$ $N_4 = 0.52280$ $N_6 = 1.83061$ $R = 0.95450$

Unit. $AB := 1$ **Given.** $N_1 := 3.18403$ $N_2 := 1.40185$ $N_3 := 1.24192$ $N_4 := .52280$

$N_5 := 2.77013$ $N_6 := 1.83061$ $N_7 := 2.46987$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $F := \frac{N_u}{N_6}$ $G := \frac{N_u}{N_7}$

$T := 19$ $U := 18$ $V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$j := \frac{T}{N_1}$ $k := \frac{U}{N_2}$ $l := \frac{V}{N_3}$ $m := \frac{W}{N_4}$ $n := \frac{X}{N_5}$ $o := \frac{Y}{N_6}$ $p := \frac{Z}{N_7}$

Descriptions.

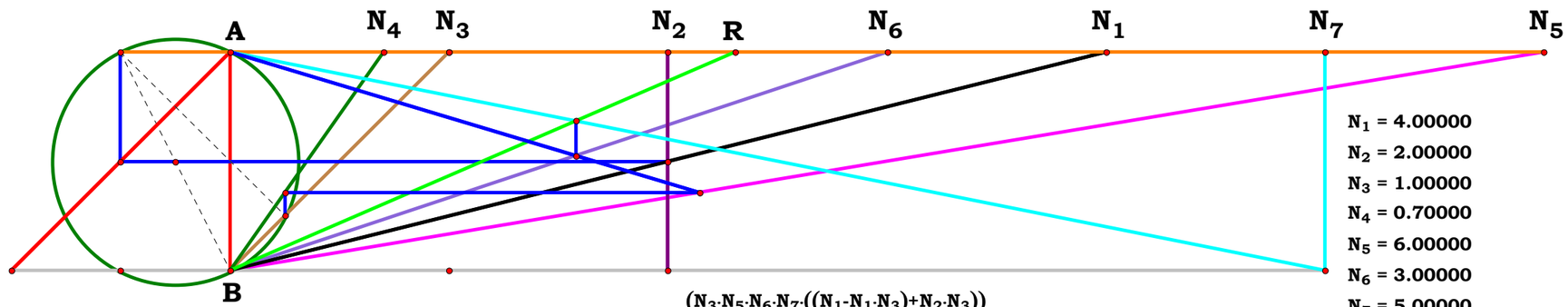
$$AC := \frac{N_1 - N_2}{N_1} \qquad BN_3 := \sqrt{AB^2 + N_3^2} \qquad CN_3 := N_3 + AC$$

$$EN_3 := \frac{N_3 \cdot CN_3}{BN_3} \qquad BG := \frac{N_3 \cdot (BN_3 - EN_3)}{BN_3}$$

$$FG := \frac{BG}{N_4} \qquad FH := N_5 \cdot FG \qquad BJ := \frac{FH}{(AB - FG)}$$

$$BO := \frac{N_6 \cdot BJ}{N_6 + BJ} \qquad KO := \frac{N_7 - BO}{N_7}$$

$$R := \frac{BO}{KO} \qquad R = 0.954505$$



$$\frac{(N_3 \cdot N_5 \cdot N_6 \cdot N_7 \cdot ((N_1 - N_1 \cdot N_3) + N_2 \cdot N_3))}{(N_6 \cdot N_7 \cdot (N_3^2 \cdot ((N_1 - N_2) + N_1 \cdot N_4) - N_1 \cdot (N_3 - N_4)) - N_3 \cdot N_5 \cdot (N_6 - N_7) \cdot ((N_1 - N_1 \cdot N_3) + N_2 \cdot N_3))} - R = 0.00000$$

$N_1 = 4.00000$
$N_2 = 2.00000$
$N_3 = 1.00000$
$N_4 = 0.70000$
$N_5 = 6.00000$
$N_6 = 3.00000$
$N_7 = 5.00000$
$R = 2.30769$

Definitions.

$$R - \frac{N_3 \cdot N_5 \cdot N_6 \cdot N_7 \cdot (AC \cdot N_3 - 1)}{N_3 \cdot N_5 \cdot N_6 - N_3 \cdot N_7 \cdot (N_5 - N_6) - N_4 \cdot N_6 \cdot N_7 \cdot (N_3^2 + 1) - AC \cdot N_3^2 \cdot [N_5 \cdot N_6 - N_7 \cdot (N_5 - N_6)]} = 0$$

$$R - \frac{N_3 \cdot N_5 \cdot N_6 \cdot N_7 \cdot (N_1 - N_1 \cdot N_3 + N_2 \cdot N_3)}{N_6 \cdot N_7 \cdot [N_3^2 \cdot (N_1 - N_2 + N_1 \cdot N_4) - N_1 \cdot (N_3 - N_4)] - N_3 \cdot N_5 \cdot (N_6 - N_7) \cdot (N_1 - N_1 \cdot N_3 + N_2 \cdot N_3)} = 0$$

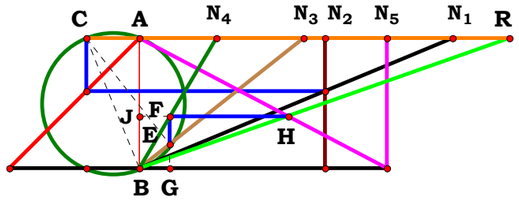
$$N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0 \quad N_4 - \frac{N_u}{D} = 0 \quad N_5 - \frac{N_u}{E} = 0 \quad N_6 - \frac{N_u}{F} = 0 \quad N_7 - \frac{N_u}{G} = 0$$

$$R - \frac{D \cdot N_u \cdot [B \cdot C + N_u \cdot (A - B)]}{F \cdot D \cdot [B \cdot C + N_u \cdot (A - B)] + [B \cdot (C^2 + N_u^2) - B \cdot C \cdot D - D \cdot N_u \cdot (A - B)] \cdot E - G \cdot D \cdot [B \cdot C + N_u \cdot (A - B)]} = 0$$

$$N_1 - \frac{T}{j} = 0 \quad N_2 - \frac{U}{k} = 0 \quad N_3 - \frac{V}{l} = 0 \quad N_4 - \frac{W}{m} = 0 \quad N_5 - \frac{X}{n} = 0 \quad N_6 - \frac{Y}{o} = 0 \quad N_7 - \frac{Z}{p} = 0$$

$$R - \frac{V \cdot X \cdot Y \cdot Z \cdot m \cdot (U \cdot V \cdot j - T \cdot V \cdot k + T \cdot k \cdot l)}{W \cdot T \cdot Y \cdot Z \cdot k \cdot n \cdot (V^2 + l^2) + [X \cdot V \cdot m \cdot (Y \cdot p - Z \cdot o) \cdot (T \cdot V \cdot k - U \cdot V \cdot j - T \cdot k \cdot l) + V \cdot Y \cdot Z \cdot m \cdot n \cdot (T \cdot V \cdot k - U \cdot V \cdot j - T \cdot k \cdot l)]} = 0$$

4RST6AB1R11



$N_1 = 2.39948$
$N_2 = 1.42122$
$N_3 = 1.26129$
$N_4 = 0.59060$
$N_5 = 1.89841$
$R = 2.84269$

Unit. $AB := 1$ Given. $N_1 := 2.39948$ $N_2 := 1.42122$ $N_3 := 1.26129$

$N_4 := .59060$ $N_5 := 1.89841$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$

$V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$l := \frac{V}{N_1}$ $m := \frac{W}{N_2}$ $n := \frac{X}{N_3}$ $o := \frac{Y}{N_4}$ $p := \frac{Z}{N_5}$

Descriptions.

$$AC := \frac{N_1 - N_2}{N_1} \quad BN_3 := \sqrt{N_3^2 + AB^2} \quad CN_3 := N_3 + AC$$

$$EN_3 := \frac{N_3 \cdot CN_3}{BN_3} \quad BG := \frac{N_3 \cdot (BN_3 - EN_3)}{BN_3} \quad FG := \frac{BG}{N_4}$$

$$HJ := N_5 \cdot (AB - FG) \quad R := \frac{HJ}{FG} \quad R = 2.842644$$

Definitions.

$$R - \frac{N_5 \cdot \left(N_3 - N_4 - N_3^2 \cdot N_4 - AC \cdot N_3^2\right)}{N_3 \cdot (AC \cdot N_3 - 1)} = 0$$

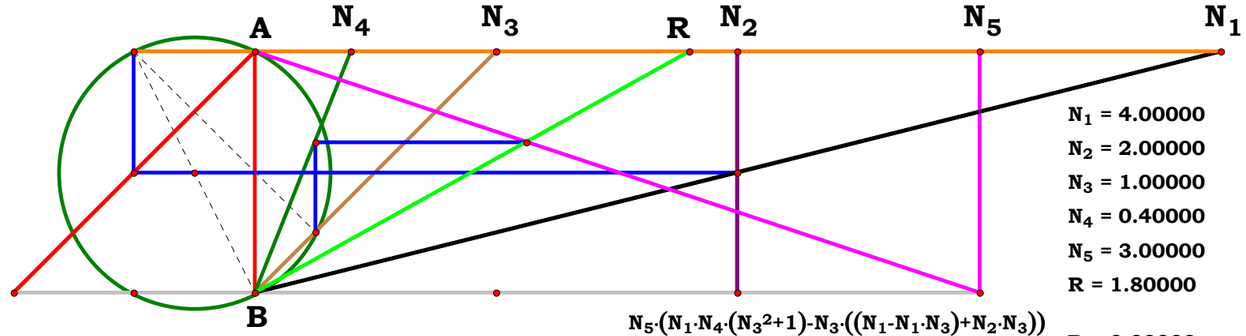
$$R - \frac{N_5 \cdot \left[N_1 \cdot N_4 \cdot \left(N_3^2 + 1\right) - N_3 \cdot \left(N_1 - N_1 \cdot N_3 + N_2 \cdot N_3\right)\right]}{N_3 \cdot \left(N_1 - N_1 \cdot N_3 + N_2 \cdot N_3\right)} = 0$$

$$N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0 \quad N_4 - \frac{N_u}{D} = 0 \quad N_5 - \frac{N_u}{E} = 0$$

$$R - \frac{B \cdot N_u^3 - D \cdot N_u^2 \cdot (A - B) + B \cdot C \cdot N_u \cdot (C - D)}{D \cdot E \cdot \left[B \cdot C + N_u \cdot (A - B)\right]} = 0$$

$$N_1 - \frac{V}{l} = 0 \quad N_2 - \frac{W}{m} = 0 \quad N_3 - \frac{X}{n} = 0 \quad N_4 - \frac{Y}{o} = 0 \quad N_5 - \frac{Z}{p} = 0$$

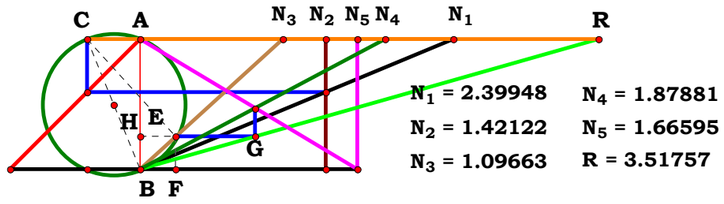
$$R - \frac{Y \cdot V \cdot Z \cdot m \cdot \left(X^2 + n^2\right) + X \cdot Z \cdot o \cdot (V \cdot X \cdot m - W \cdot X \cdot l - V \cdot m \cdot n)}{W \cdot X^2 \cdot l \cdot o \cdot p - V \cdot X^2 \cdot m \cdot o \cdot p + V \cdot X \cdot m \cdot n \cdot o \cdot p} = 0$$



$N_1 = 4.00000$
$N_2 = 2.00000$
$N_3 = 1.00000$
$N_4 = 0.40000$
$N_5 = 3.00000$
$R = 1.80000$

$$\frac{N_5 \cdot (N_1 \cdot N_4 \cdot (N_3^2 + 1) - N_3 \cdot ((N_1 - N_1 \cdot N_3) + N_2 \cdot N_3))}{N_3 \cdot ((N_1 - N_1 \cdot N_3) + N_2 \cdot N_3)} - R = 0.00000$$

4RST6AB1R12



Unit. $AB := 1$ Given. $N_1 := 2.39948$ $N_2 := 1.42122$ $N_3 := 1.09663$

$N_4 := 1.87881$ $N_5 := 1.66595$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$

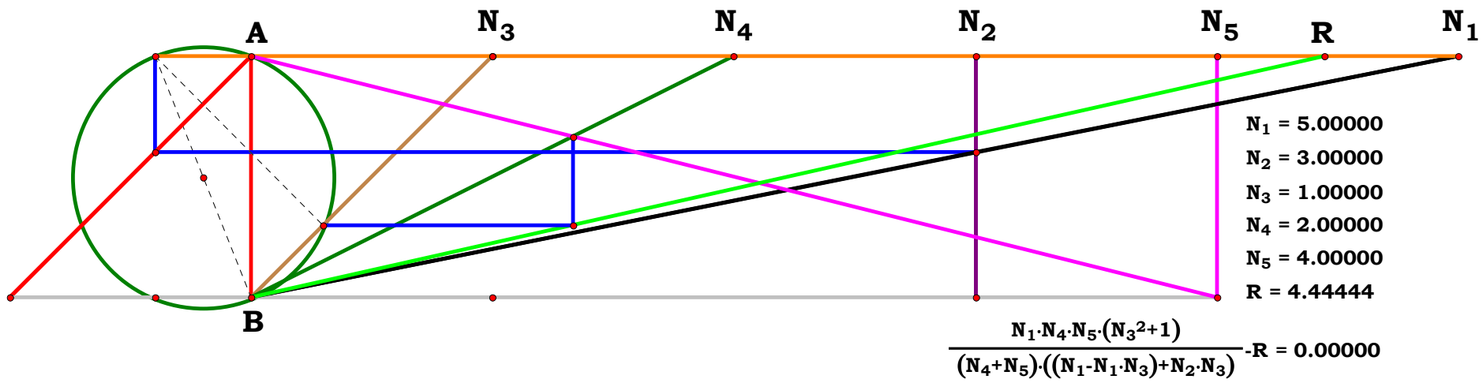
$V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $l := \frac{V}{N_1}$ $m := \frac{W}{N_2}$ $n := \frac{X}{N_3}$ $o := \frac{Y}{N_4}$ $p := \frac{Z}{N_5}$

Descriptions.

$AC := \frac{N_1 - N_2}{N_1}$ $BN_3 := \sqrt{N_3^2 + AB^2}$ $CN_3 := N_3 + AC$

$EN_3 := \frac{N_3 \cdot CN_3}{BN_3}$ $EF := \frac{(BN_3 - EN_3)}{BN_3}$ $HG := \frac{N_5 \cdot N_4}{N_5 + N_4}$

$R := \frac{HG}{EF}$ $R = 3.517552$



Definitions.

$$R - \frac{N_4 \cdot N_5 \cdot (N_3^2 + 1)}{(N_4 + N_5) \cdot (1 - AC \cdot N_3)} = 0$$

$$R - \frac{N_1 \cdot N_4 \cdot N_5 \cdot (N_3^2 + 1)}{(N_4 + N_5) \cdot (N_1 - N_1 \cdot N_3 + N_2 \cdot N_3)} = 0$$

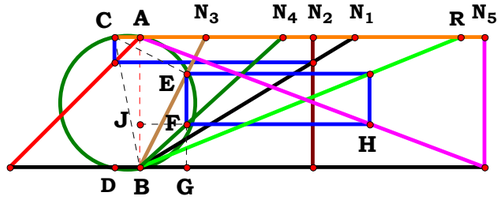
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$

$$R - \frac{B \cdot N_u \cdot (C^2 + N_u^2)}{C \cdot (D + E) \cdot [B \cdot C + N_u \cdot (A - B)]} = 0$$

$N_1 - \frac{V}{l} = 0$ $N_2 - \frac{W}{m} = 0$ $N_3 - \frac{X}{n} = 0$ $N_4 - \frac{Y}{o} = 0$ $N_5 - \frac{Z}{p} = 0$

$$R - \frac{V \cdot Y \cdot Z \cdot m \cdot (X^2 + n^2)}{n \cdot (Y \cdot p + Z \cdot o) \cdot (W \cdot X \cdot l - V \cdot X \cdot m + V \cdot m \cdot n)} = 0$$

4RST6AB1R13



$N_1 = 1.64399$
$N_2 = 1.32436$
$N_3 = 0.50580$
$N_4 = 1.09426$
$N_5 = 2.64422$
$R = 2.46063$

Unit. $AB := 1$ **Given.** $N_1 := 1.64399$ $N_2 := 1.32436$ $N_3 := .50580$

$N_4 := 1.09426$ $N_5 := 2.64422$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$

$V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$l := \frac{V}{N_1}$ $m := \frac{W}{N_2}$ $n := \frac{X}{N_3}$ $o := \frac{Y}{N_4}$ $p := \frac{Z}{N_5}$

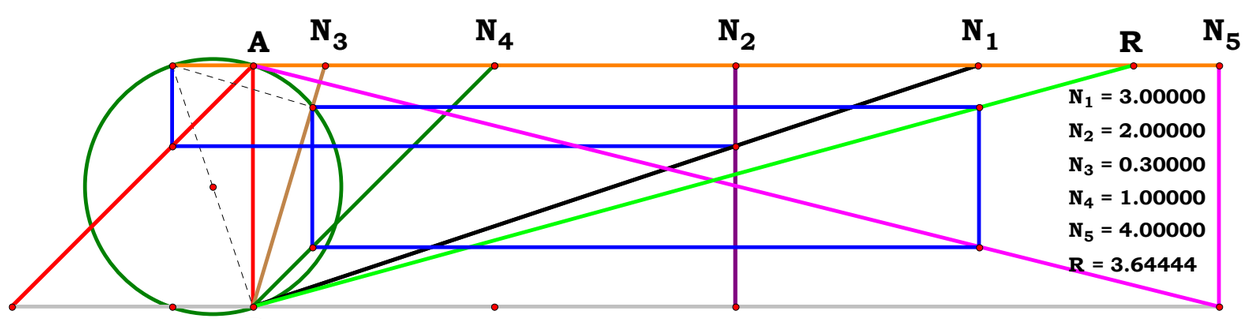
Descriptions.

$AC := \frac{N_1 - N_2}{N_1}$ $BN_3 := \sqrt{N_3^2 + AB^2}$ $CN_3 := N_3 + AC$

$EN_3 := \frac{N_3 \cdot CN_3}{BN_3}$ $BG := \frac{N_3 \cdot (BN_3 - EN_3)}{BN_3}$ $FG := \frac{BG}{N_4}$

$JH := N_5 \cdot (AB - FG)$ $EG := \frac{BN_3 - EN_3}{BN_3}$

$R := \frac{JH}{EG}$ $R = 2.460633$



Definitions.

$$R - \frac{N_5 \cdot \left(N_3 - N_4 - N_3^2 \cdot N_4 - AC \cdot N_3^2\right)}{N_4 \cdot (AC \cdot N_3 - 1)} = 0$$

$$R - \frac{N_5 \cdot \left[N_1 \cdot N_3 \cdot (N_3 - 1) - N_2 \cdot N_3^2 + N_1 \cdot N_4 \cdot \left(N_3^2 + 1\right)\right]}{N_4 \cdot \left(N_1 - N_1 \cdot N_3 + N_2 \cdot N_3\right)} = 0$$

$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$

$$R - \frac{N_u \cdot \left[B \cdot N_u^2 - D \cdot N_u \cdot (A - B) + B \cdot C \cdot (C - D)\right]}{B \cdot C^2 \cdot E + C \cdot E \cdot N_u \cdot (A - B)} = 0$$

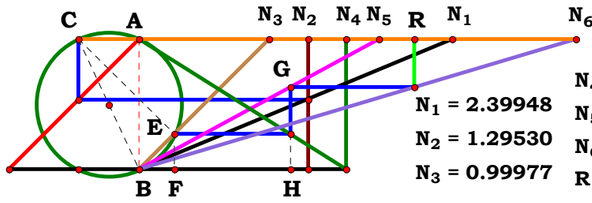
$N_1 - \frac{V}{l} = 0$ $N_2 - \frac{W}{m} = 0$ $N_3 - \frac{X}{n} = 0$ $N_4 - \frac{Y}{o} = 0$ $N_5 - \frac{Z}{p} = 0$

$$R - \frac{Y \cdot V \cdot Z \cdot m \cdot \left(X^2 + n^2\right) + X \cdot Z \cdot o \cdot (V \cdot X \cdot m - W \cdot X \cdot l - V \cdot m \cdot n)}{Y \cdot n \cdot p \cdot (W \cdot X \cdot l - V \cdot X \cdot m + V \cdot m \cdot n)} = 0$$

B

$$\frac{N_5 \cdot ((N_1 \cdot N_3 \cdot (N_3 - 1) - N_2 \cdot N_3^2) + N_1 \cdot N_4 \cdot (N_3^2 + 1))}{N_4 \cdot ((N_1 - N_1 \cdot N_3) + N_2 \cdot N_3)} - R = 0.00000$$

4RST6AB1R14



$N_1 = 2.39948$
$N_2 = 1.29530$
$N_3 = 0.99977$
$N_4 = 1.58824$
$N_5 = 1.84030$
$N_6 = 3.35128$
$R = 2.11128$

Unit. $AB := 1$ Given. $N_1 := 2.39948$ $N_2 := 1.29530$ $N_3 := .99977$

$N_4 := 1.58824$ $N_5 := 1.84030$ $N_6 := 3.35128$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $F := \frac{N_u}{N_6}$

$U := 18$ $V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $k := \frac{U}{N_1}$ $l := \frac{V}{N_2}$ $m := \frac{W}{N_3}$ $n := \frac{X}{N_4}$ $o := \frac{Y}{N_5}$ $p := \frac{Z}{N_6}$

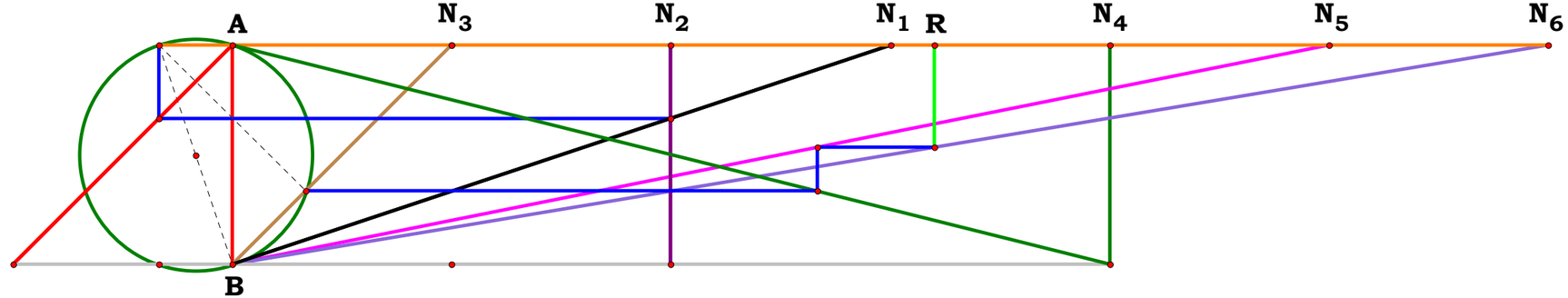
Descriptions.

$AC := \frac{N_1 - N_2}{N_1}$ $BN_3 := \sqrt{N_3^2 + AB^2}$

$CN_3 := N_3 + AC$ $EN_3 := \frac{N_3 \cdot CN_3}{BN_3}$

$EF := \frac{BN_3 - EN_3}{BN_3}$ $BH := N_4 \cdot (AB - EF)$

$GH := \frac{BH}{N_5}$ $R := N_6 \cdot GH$ $R = 2.111274$



$N_1 = 3.00000$
$N_2 = 2.00000$
$N_3 = 1.00000$
$N_4 = 4.00000$
$N_5 = 5.00000$
$N_6 = 6.00000$
$\frac{N_3 \cdot N_4 \cdot N_6 \cdot ((N_1 - N_2) + N_1 \cdot N_3)}{N_1 \cdot N_5 \cdot (N_3^2 + 1)} - R = 0.00000$
$R = 3.20000$

Definitions.

$$R - \frac{N_3 \cdot N_4 \cdot N_6 \cdot (AC + N_3)}{N_5 \cdot (N_3^2 + 1)} = 0$$

$$R - \frac{N_3 \cdot N_4 \cdot N_6 \cdot (N_1 - N_2 + N_1 \cdot N_3)}{N_1 \cdot N_5 \cdot (N_3^2 + 1)} = 0$$

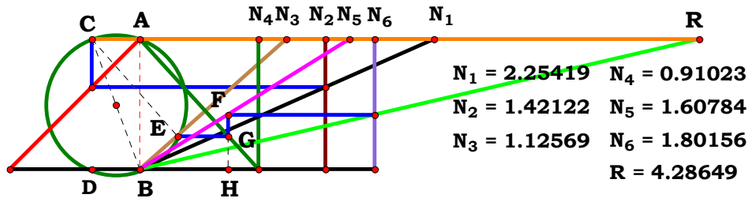
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$ $N_6 - \frac{N_u}{F} = 0$

$$R - \frac{E \cdot N_u^2 \cdot [B \cdot N_u - C \cdot (A - B)]}{F \cdot B \cdot D \cdot (C^2 + N_u^2)} = 0$$

$N_1 - \frac{U}{k} = 0$ $N_2 - \frac{V}{l} = 0$ $N_3 - \frac{W}{m} = 0$ $N_4 - \frac{X}{n} = 0$ $N_5 - \frac{Y}{o} = 0$ $N_6 - \frac{Z}{p} = 0$

$$R - \frac{W \cdot X \cdot Z \cdot o \cdot (U \cdot W \cdot l + U \cdot l \cdot m - V \cdot k \cdot m)}{p \cdot U \cdot Y \cdot l \cdot n \cdot (W^2 + m^2)} = 0$$

4RST6AB1R15



$N_1 = 2.25419$ $N_4 = 0.91023$
$N_2 = 1.42122$ $N_5 = 1.60784$
$N_3 = 1.12569$ $N_6 = 1.80156$
$R = 4.28649$

Unit. $AB := 1$ Given. $N_1 := 2.25419$ $N_2 := 1.42122$ $N_3 := 1.12569$

$N_4 := .91023$ $N_5 := 1.60784$ $N_6 := 1.80156$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $F := \frac{N_u}{N_6}$

$U := 18$ $V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$k := \frac{U}{N_1}$ $l := \frac{V}{N_2}$ $m := \frac{W}{N_3}$ $n := \frac{X}{N_4}$ $o := \frac{Y}{N_5}$ $p := \frac{Z}{N_6}$

Descriptions.

$AC := \frac{N_1 - N_2}{N_1}$ $BN_3 := \sqrt{N_3^2 + AB^2}$ $CN_3 := N_3 + AC$

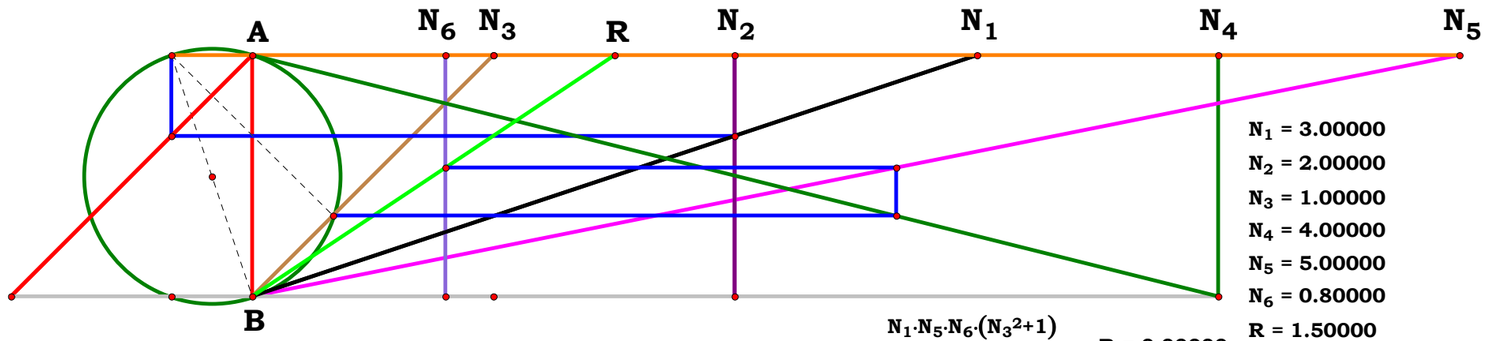
$EN_3 := \frac{N_3 \cdot CN_3}{BN_3}$ $GH := \frac{BN_3 - EN_3}{BN_3}$ $BH := N_4 \cdot (AB - GH)$

$FH := \frac{BH}{N_5}$ $R := \frac{N_6}{FH}$ $R = 4.28652$

Definitions.

$$R - \frac{N_5 \cdot N_6 \cdot \left(N_3^2 + 1\right)}{N_3 \cdot N_4 \cdot \left(AC + N_3\right)} = 0$$

$$R - \frac{N_1 \cdot N_5 \cdot N_6 \cdot \left(N_3^2 + 1\right)}{N_3 \cdot N_4 \cdot \left(N_1 - N_2 + N_1 \cdot N_3\right)} = 0$$



$N_1 = 3.00000$
$N_2 = 2.00000$
$N_3 = 1.00000$
$N_4 = 4.00000$
$N_5 = 5.00000$
$N_6 = 0.80000$
$R = 1.50000$

$\frac{N_1 \cdot N_5 \cdot N_6 \cdot (N_3^2+1)}{N_3 \cdot N_4 \cdot ((N_1-N_2)+N_1 \cdot N_3)} - R = 0.00000$

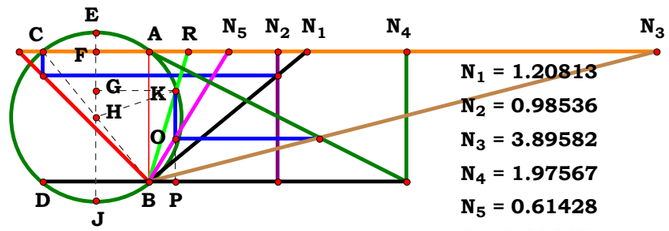
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$ $N_6 - \frac{N_u}{F} = 0$

$$R - \frac{B \cdot D \cdot \left(C^2 + N_u^2\right)}{E \cdot F \cdot \left[B \cdot N_u - C \cdot (A - B)\right]} = 0$$

$N_1 - \frac{U}{k} = 0$ $N_2 - \frac{V}{l} = 0$ $N_3 - \frac{W}{m} = 0$ $N_4 - \frac{X}{n} = 0$ $N_5 - \frac{Y}{o} = 0$ $N_6 - \frac{Z}{p} = 0$

$$R - \frac{U \cdot Y \cdot Z \cdot l \cdot n \cdot \left(W^2 + m^2\right)}{o \cdot p \cdot W \cdot X \cdot (U \cdot W \cdot l + U \cdot l \cdot m - V \cdot k \cdot m)} = 0$$

4RST6AB2R0



$N_1 = 1.20813$
$N_2 = 0.98536$
$N_3 = 3.89582$
$N_4 = 1.97567$
$N_5 = 0.61428$
$R = 0.29667$

Unit. $AB := 1$ Given. $N_1 := 1.20813$ $N_2 := .98536$ $N_3 := 3.89582$

$N_4 := 1.97567$ $N_5 := .61428$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$

$V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $l := \frac{V}{N_1}$ $m := \frac{W}{N_2}$ $n := \frac{X}{N_3}$ $o := \frac{Y}{N_4}$ $p := \frac{Z}{N_5}$

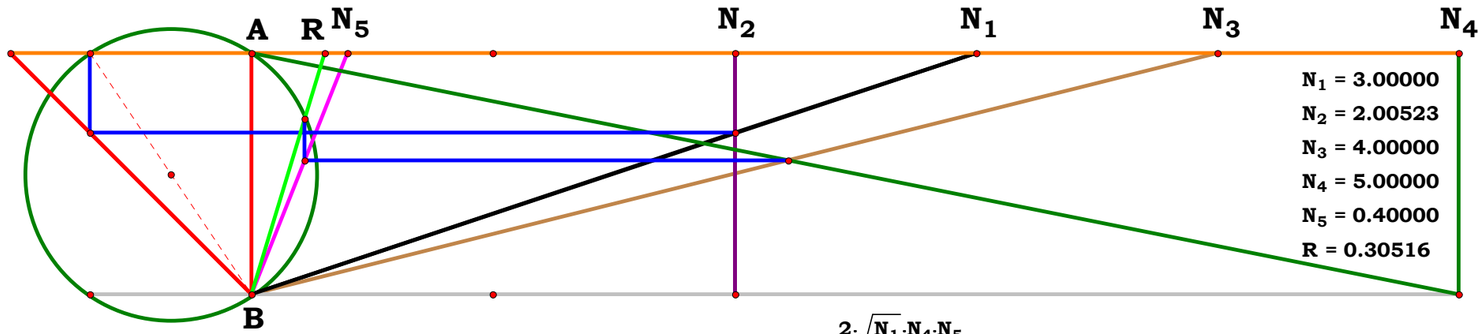
Descriptions.

$AC := \frac{N_2}{N_1}$ $EJ := \sqrt{AB^2 + AC^2}$ $EF := \frac{EJ - AB}{2}$

$AF := \frac{AC}{2}$ $OP := \frac{N_4}{N_3 + N_4}$ $BP := N_5 \cdot OP$

$GK := BP + AF$ $HK := \frac{EJ}{2}$ $GH := \sqrt{HK^2 - GK^2}$

$KO := \frac{AB}{2} + GH$ $R := \frac{BP}{KO}$ $R = 0.296676$



$N_1 = 3.00000$
$N_2 = 2.00523$
$N_3 = 4.00000$
$N_4 = 5.00000$
$N_5 = 0.40000$
$R = 0.30516$

$$\frac{2\cdot\sqrt{N_1}\cdot N_4\cdot N_5}{\sqrt{N_1}\cdot(N_3+N_4)+\sqrt{(((N_1\cdot N_3{}^2+N_1\cdot N_4{}^2)-4\cdot N_1\cdot N_4{}^2\cdot N_5{}^2)+2\cdot N_1\cdot N_3\cdot N_4)-4\cdot N_2\cdot N_4\cdot N_5\cdot(N_3+N_4)}} - R = 0.00000$$

Definitions.

$$R - \frac{2\cdot\sqrt{N_1}\cdot N_4\cdot N_5}{\sqrt{N_1}\cdot\left(N_3+N_4\right)+\sqrt{N_1\cdot N_3{}^2+N_1\cdot N_4{}^2-4\cdot N_1\cdot N_4{}^2\cdot N_5{}^2+2\cdot N_1\cdot N_3\cdot N_4-4\cdot N_2\cdot N_4\cdot N_5\cdot\left(N_3+N_4\right)}} = 0$$

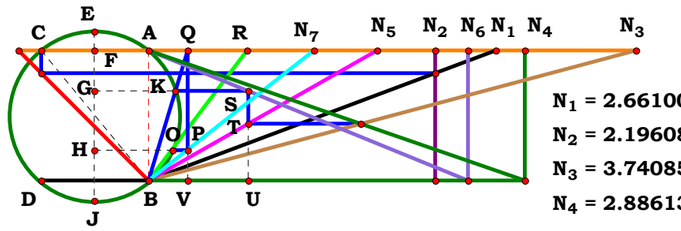
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$

$$R - \frac{2\cdot C\cdot\left(\sqrt{N_u}\right)^3\cdot\sqrt{B}}{\sqrt{N_u\cdot\left[E^2\cdot B\cdot(C+D)^2-4\cdot E\cdot A\cdot C\cdot N_u\cdot(C+D)-4\cdot B\cdot C^2\cdot N_u{}^2\right]}+\sqrt{N_u}\cdot\sqrt{B}\cdot E\cdot(C+D)} = 0$$

$N_1 - \frac{V}{l} = 0$ $N_2 - \frac{W}{m} = 0$ $N_3 - \frac{X}{n} = 0$ $N_4 - \frac{Y}{o} = 0$ $N_5 - \frac{Z}{p} = 0$

$$R - \frac{2\cdot\sqrt{V}\cdot Y\cdot Z\cdot n\cdot\sqrt{l\cdot m}}{\sqrt{l}\cdot\sqrt{V\cdot m\cdot(X\cdot o\cdot p-2\cdot Y\cdot Z\cdot n+Y\cdot n\cdot p)}\cdot(2\cdot Y\cdot Z\cdot n+X\cdot o\cdot p+Y\cdot n\cdot p)-[4\cdot W\cdot Y\cdot Z\cdot l\cdot n\cdot p\cdot(X\cdot o+Y\cdot n)]}+\sqrt{l\cdot m}\cdot\sqrt{V}\cdot p\cdot(X\cdot o+Y\cdot n) = 0$$

4RST6AB2R1



$N_1 = 2.66100$ $N_5 = 1.75720$
$N_2 = 2.19608$ $N_6 = 2.45050$
$N_3 = 3.74085$ $N_7 = 1.27081$
$N_4 = 2.88613$ $R = 0.75792$

Unit. $AB := 1$ **Given.** $N_1 := 2.66100$ $N_2 := 2.19608$ $N_3 := 3.74085$ $N_4 := 2.88613$ $N_5 := 1.75720$ $N_6 := 2.45050$ $N_7 := 1.27081$

Descriptions.

$$AC := \frac{N_2}{N_1} \qquad EJ := \sqrt{AB^2 + AC^2}$$

$$AF := \frac{AC}{2} \qquad EF := \frac{EJ - AB}{2}$$

$$TU := \frac{N_4}{N_3 + N_4}$$

$$BU := N_5 \cdot TU$$

$$SU := \frac{N_6 - BU}{N_6}$$

$$GJ := SU + EF$$

$$GK := \sqrt{GJ \cdot (EJ - GJ)}$$

$$AQ := \frac{GK - AF}{SU}$$

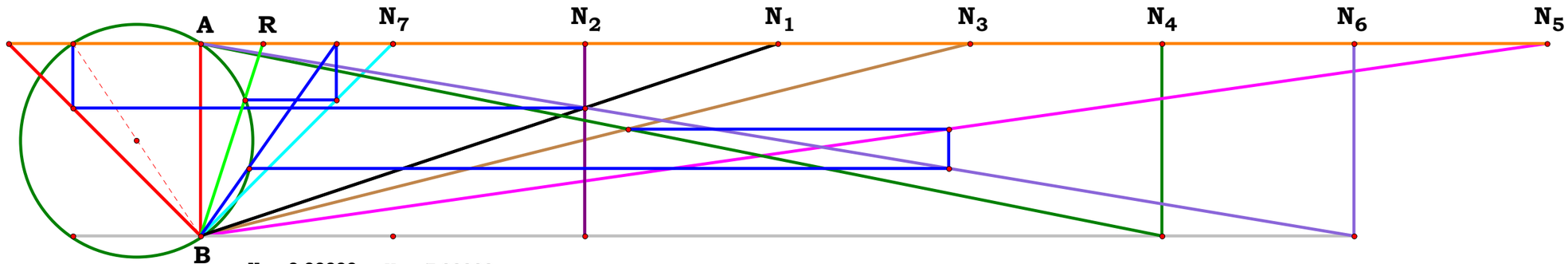
$$PV := \frac{AQ}{N_7}$$

$$HJ := PV + EF$$

$$HO := \sqrt{HJ \cdot (EJ - HJ)}$$

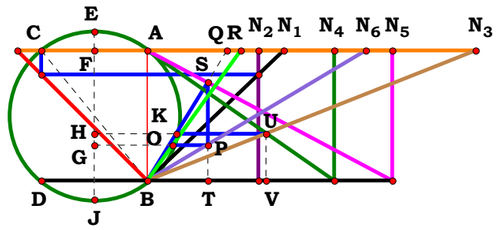
$$R := \frac{HO - AF}{PV}$$

$$R = 0.757925$$



$N_1 = 3.00000$ $N_5 = 7.00000$ $AB = 1.00000$ $EF = 0.10093$ $GJ = 0.45278$ $HJ = 0.80873$
$N_2 = 2.00000$ $N_6 = 6.00000$ $AC = 0.66667$ $TU = 0.55556$ $GK = 0.58238$ $HO = 0.56385$
$N_3 = 4.00000$ $N_7 = 1.00000$ $EJ = 1.20185$ $BU = 3.88889$ $AQ = 0.70781$ $R - \frac{HO-AF}{PV} = 0.00000$
$N_4 = 5.00000$ $R = 0.32568$ $AF = 0.33333$ $SU = 0.35185$ $PV = 0.70781$

4RST6AB2R2



$N_1 = 1.04347$ $N_5 = 1.88311$
$N_2 = 0.84976$ $N_6 = 1.67564$
$N_3 = 2.52044$ $R = 0.71485$
$N_4 = 1.43327$

Unit. $AB := 1$ **Given.** $N_1 := 1.04347$ $N_2 := .84976$ $N_3 := 2.52044$
$N_4 := 1.43327$ $N_5 := 1.88311$ $N_6 := 1.67564$

Descriptions.

$$AC := \frac{N_2}{N_1} \qquad EJ := \sqrt{AB^2 + AC^2}$$

$$AF := \frac{AC}{2} \qquad EF := \frac{EJ - AB}{2}$$

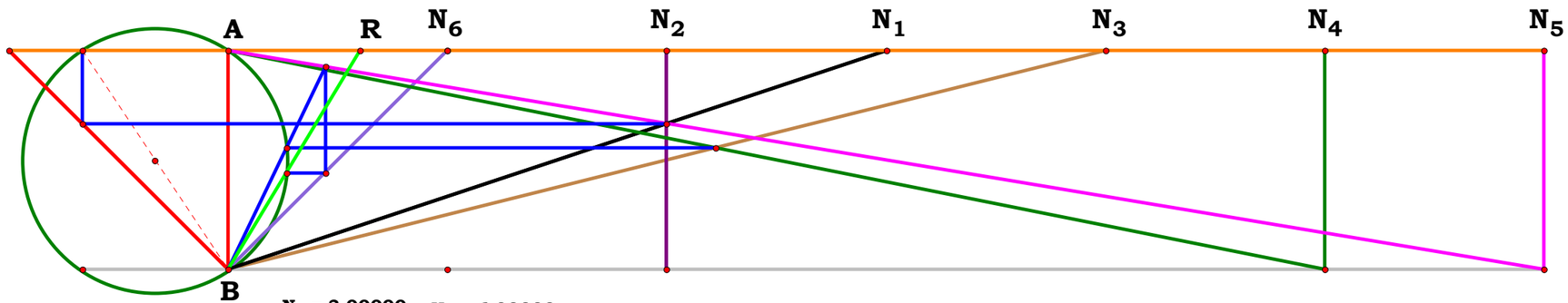
$$UV := \frac{N_4}{N_3 + N_4} \qquad HJ := UV + EF$$

$$HK := \sqrt{HJ \cdot (EJ - HJ)} \qquad AQ := \frac{HK - AF}{UV}$$

$$BT := \frac{AQ \cdot N_5}{AQ + N_5} \qquad PT := \frac{BT}{N_6}$$

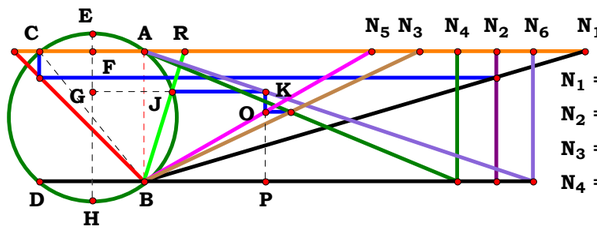
$$GJ := PT + EF \qquad GO := \sqrt{GJ \cdot (EJ - GJ)}$$

$$R := \frac{GO - AF}{PT} \qquad R = 0.714844$$



$N_1 = 3.00000$ $N_5 = 6.00000$ $AB = 1.00000$ $EF = 0.10093$ $AQ = 0.47703$ $GO = 0.59811$
$N_2 = 2.00000$ $N_6 = 1.00000$ $AC = 0.66667$ $UV = 0.55556$ $BT = 0.44190$ $R - \frac{GO-AF}{PT} = 0.00000$
$N_3 = 4.00000$ $R = 0.59918$ $EJ = 1.20185$ $HJ = 0.65648$ $PT = 0.44190$
$N_4 = 5.00000$ $AF = 0.33333$ $HK = 0.59835$ $GJ = 0.54282$

4RST6AB2R3



$N_1 = 3.37775$
$N_2 = 2.69974$
$N_3 = 2.11364$
$N_4 = 2.40185$
$N_5 = 1.74751$
$N_6 = 2.98322$
$R = 0.30808$

Unit. $AB := 1$ Given. $N_1 := 3.37775$ $N_2 := 2.69974$ $N_3 := 2.11364$

$N_4 := 2.40185$ $N_5 := 1.74751$ $N_6 := 2.98322$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $F := \frac{N_u}{N_6}$

$U := 18$ $V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $k := \frac{U}{N_1}$ $l := \frac{V}{N_2}$ $m := \frac{W}{N_3}$ $n := \frac{X}{N_4}$ $o := \frac{Y}{N_5}$ $p := \frac{Z}{N_6}$

Descriptions.

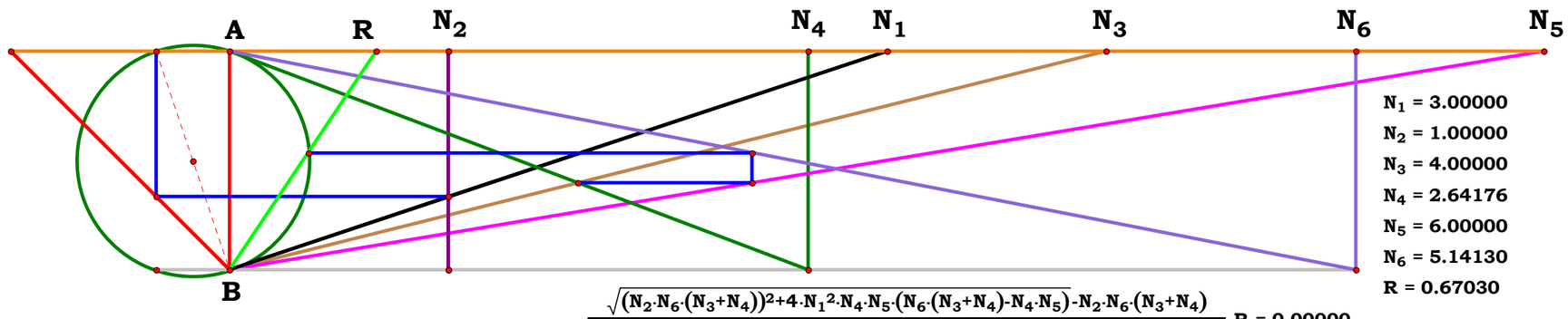
$AC := \frac{N_2}{N_1}$ $EH := \sqrt{AB^2 + AC^2}$ $EF := \frac{EH - AB}{2}$

$AF := \frac{AC}{2}$ $OP := \frac{N_4}{N_3 + N_4}$

$BP := N_5 \cdot OP$ $KP := AB - \frac{BP}{N_6}$

$GH := KP + EF$ $GJ := \sqrt{GH \cdot (EH - GH)}$

$R := \frac{GJ - AF}{KP}$ $R = 0.308084$



$N_1 = 3.00000$
$N_2 = 1.00000$
$N_3 = 4.00000$
$N_4 = 2.64176$
$N_5 = 6.00000$
$N_6 = 5.14130$
$R = 0.67030$

$$\frac{\sqrt{(N_2 \cdot N_6 \cdot (N_3 + N_4))^2 + 4 \cdot N_1^2 \cdot N_4 \cdot N_5 \cdot (N_6 \cdot (N_3 + N_4) - N_4 \cdot N_5)} - N_2 \cdot N_6 \cdot (N_3 + N_4)}{2 \cdot N_1 \cdot ((N_3 \cdot N_6 - N_4 \cdot N_5) + N_4 \cdot N_6)} - R = 0.00000$$

Definitions.

$$R - \frac{\sqrt{N_2^2 \cdot N_6^2 \cdot (N_3 + N_4)^2 + 4 \cdot N_1^2 \cdot N_4 \cdot N_5 \cdot [N_6 \cdot (N_3 + N_4) - N_4 \cdot N_5]} - N_2 \cdot N_6 \cdot (N_3 + N_4)}{2 \cdot N_1 \cdot (N_3 \cdot N_6 - N_4 \cdot N_5 + N_4 \cdot N_6)} = 0$$

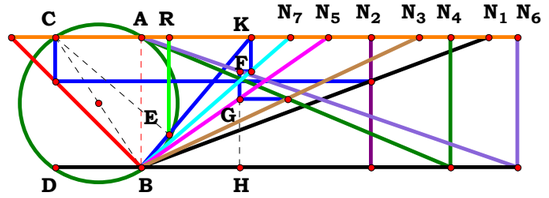
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$ $N_6 - \frac{N_u}{F} = 0$

$$R - \frac{\sqrt{A^2 \cdot E^2 \cdot (C + D)^2 - 4 \cdot B^2 \cdot C^2 \cdot F^2 + 4 \cdot B^2 \cdot C \cdot E \cdot F \cdot (C + D)} - A \cdot E \cdot (C + D)}{2 \cdot B \cdot (C \cdot E - C \cdot F + D \cdot E)} = 0$$

$N_1 - \frac{U}{k} = 0$ $N_2 - \frac{V}{l} = 0$ $N_3 - \frac{W}{m} = 0$ $N_4 - \frac{X}{n} = 0$ $N_5 - \frac{Y}{o} = 0$ $N_6 - \frac{Z}{p} = 0$

$$R - \frac{\sqrt{4 \cdot Y \cdot U^2 \cdot X \cdot Z \cdot l^2 \cdot m \cdot o \cdot p \cdot (W \cdot n + X \cdot m) + V^2 \cdot Z^2 \cdot k^2 \cdot o^2 \cdot (W \cdot n + X \cdot m)^2 - 4 \cdot U^2 \cdot X^2 \cdot l^2 \cdot m^2 \cdot p^2 \cdot Y^2} - V \cdot Z \cdot k \cdot o \cdot (W \cdot n + X \cdot m)}{2 \cdot U \cdot l \cdot (W \cdot Z \cdot n \cdot o - X \cdot Y \cdot m \cdot p + X \cdot Z \cdot m \cdot o)} = 0$$

4RST6AB2R4



$N_1 = 2.66100$ $N_3 = 2.13301$ $N_5 = 1.43757$ $N_7 = 1.14489$

$N_2 = 1.76022$ $N_4 = 2.37279$ $N_6 = 2.88636$ $R = 0.21754$

Unit. $AB := 1$ Given. $N_1 := 2.66100$ $N_2 := 1.76022$ $N_3 := 2.13301$ $N_4 := 2.37279$

$N_5 := 1.43757$ $N_6 := 2.88636$ $N_7 := 1.14489$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $F := \frac{N_u}{N_6}$ $G := \frac{N_u}{N_7}$

$T := 19$ $U := 18$ $V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$j := \frac{T}{N_1}$ $k := \frac{U}{N_2}$ $l := \frac{V}{N_3}$ $m := \frac{W}{N_4}$ $n := \frac{X}{N_5}$ $o := \frac{Y}{N_6}$ $p := \frac{Z}{N_7}$

Descriptions.

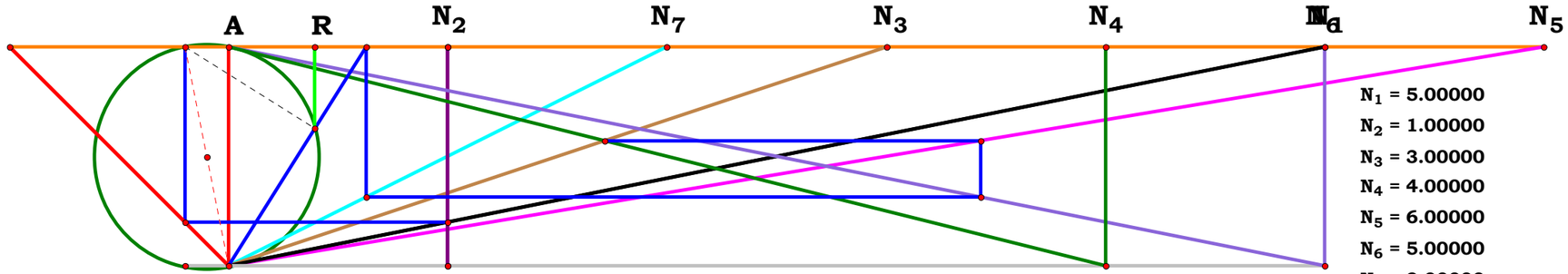
$AC := \frac{N_2}{N_1}$ $GH := \frac{N_4}{N_3 + N_4}$ $BH := N_5 \cdot GH$

$FH := \frac{N_6 - BH}{N_6}$ $AK := N_7 \cdot FH$

$BK := \sqrt{AK^2 + AB^2}$ $CK := AK + AC$

$EK := \frac{AK \cdot CK}{BK}$ $R := AK \cdot \frac{(BK - EK)}{BK}$

$R = 0.217541$



B

$$\frac{N_1 \cdot N_6 \cdot N_7 \cdot (N_3+N_4) \cdot ((N_3 \cdot N_6 - N_4 \cdot N_5) + N_4 \cdot N_6) - N_2 \cdot N_7^2 \cdot ((N_3 \cdot N_6 - N_4 \cdot N_5) + N_4 \cdot N_6)^2}{N_1 \cdot (N_6^2 \cdot (N_3+N_4)^2 + N_7^2 \cdot ((N_3 \cdot N_6 - N_4 \cdot N_5) + N_4 \cdot N_6)^2)} - R = 0.00000$$

Definitions.

$$R - \frac{N_1 \cdot N_6 \cdot N_7 \cdot (N_3 + N_4) \cdot (N_3 \cdot N_6 - N_4 \cdot N_5 + N_4 \cdot N_6) - N_2 \cdot N_7^2 \cdot (N_3 \cdot N_6 - N_4 \cdot N_5 + N_4 \cdot N_6)^2}{N_1 \cdot \left[N_6^2 \cdot (N_3 + N_4)^2 + N_7^2 \cdot (N_3 \cdot N_6 - N_4 \cdot N_5 + N_4 \cdot N_6)^2\right]} = 0$$

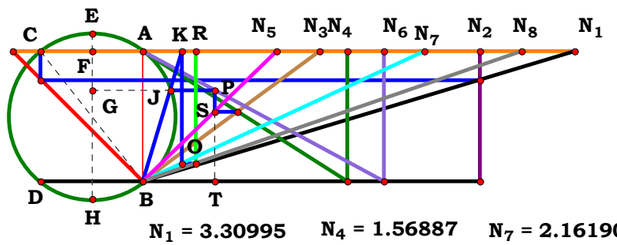
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$ $N_6 - \frac{N_u}{F} = 0$ $N_7 - \frac{N_u}{G} = 0$

$$R - \frac{N_u \cdot [C \cdot (E - F) + D \cdot E] \cdot \left[E \cdot (C + D) \cdot (B \cdot G - A \cdot N_u) + A \cdot C \cdot F \cdot N_u\right]}{E^2 \cdot B \cdot \left(G^2 + N_u^2\right) \cdot (C + D)^2 - 2 \cdot E \cdot B \cdot C \cdot F \cdot N_u^2 \cdot (C + D) + B \cdot C^2 \cdot F^2 \cdot N_u^2} = 0$$

$N_1 - \frac{T}{j} = 0$ $N_2 - \frac{U}{k} = 0$ $N_3 - \frac{V}{l} = 0$ $N_4 - \frac{W}{m} = 0$ $N_5 - \frac{X}{n} = 0$ $N_6 - \frac{Y}{o} = 0$ $N_7 - \frac{Z}{p} = 0$

$$R - \frac{Z \cdot (V \cdot Y \cdot m \cdot n - W \cdot X \cdot l \cdot o + W \cdot Y \cdot l \cdot n) \cdot [Y \cdot n \cdot (V \cdot m + W \cdot l) \cdot (T \cdot k \cdot p - U \cdot Z \cdot j) + U \cdot W \cdot X \cdot Z \cdot j \cdot l \cdot o]}{T \cdot k \cdot \left[Y^2 \cdot n^2 \cdot \left(Z^2 + p^2\right) \cdot (V \cdot m + W \cdot l)^2 - 2 \cdot Y \cdot W \cdot X \cdot Z^2 \cdot l \cdot n \cdot o \cdot (V \cdot m + W \cdot l) + W^2 \cdot X^2 \cdot Z^2 \cdot l^2 \cdot o^2\right]} = 0$$

4RST6AB2R5



$N_1 = 3.30995$ $N_4 = 1.56887$ $N_7 = 2.16190$

$N_2 = 2.58351$ $N_5 = 1.03076$ $N_8 = 2.90655$

$N_3 = 1.35815$ $N_6 = 1.84998$ $R = 0.40486$

Descriptions.

$$AC := \frac{N_2}{N_1} \qquad EH := \sqrt{AB^2 + AC^2} \qquad AF := \frac{AC}{2}$$

$$EF := \frac{EH - AB}{2} \qquad ST := \frac{N_4}{N_3 + N_4}$$

$$BT := N_5 \cdot ST \qquad PT := \frac{N_6 - BT}{N_6}$$

$$GH := PT + EF \qquad GJ := \sqrt{GH \cdot (EH - GH)}$$

$$AK := \frac{(GJ - AF)}{PT} \qquad KO := \frac{N_7 - AK}{N_7}$$

$$R := N_8 \cdot (AB - KO) \qquad R = 0.404856$$

Definitions.

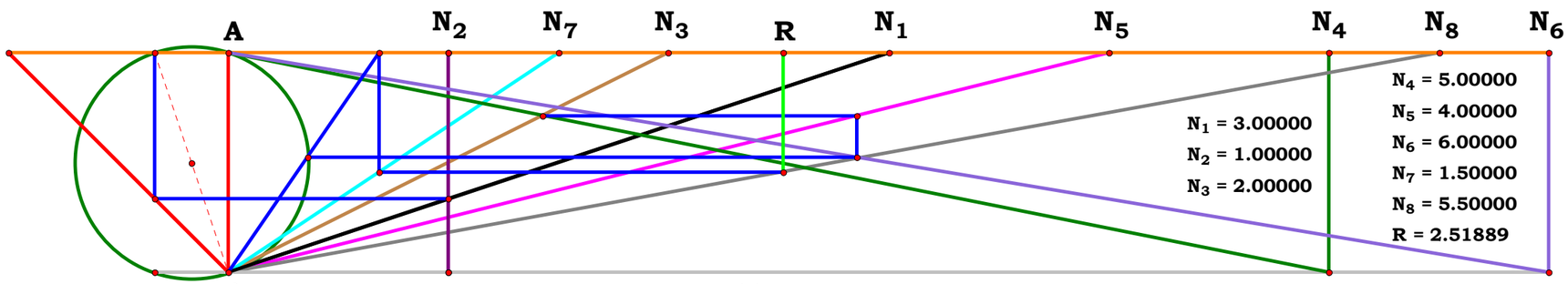
Unit. $AB := 1$ Given. $N_1 := 3.30995$ $N_2 := 2.58351$ $N_3 := 1.35815$ $N_4 := 1.56887$

$N_5 := 1.03076$ $N_6 := 1.84998$ $N_7 := 2.16190$ $N_8 := 2.90655$

$$N_u := 3 \quad A := \frac{N_u}{N_1} \quad B := \frac{N_u}{N_2} \quad C := \frac{N_u}{N_3} \quad D := \frac{N_u}{N_4} \quad E := \frac{N_u}{N_5} \quad F := \frac{N_u}{N_6} \quad G := \frac{N_u}{N_7} \quad H := \frac{N_u}{N_8}$$

$S := 20$ $T := 19$ $U := 18$ $V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$$h := \frac{S}{N_1} \quad j := \frac{T}{N_2} \quad k := \frac{Y}{N_3} \quad l := \frac{V}{N_4} \quad m := \frac{W}{N_5} \quad n := \frac{X}{N_6} \quad o := \frac{Y}{N_7} \quad p := \frac{Z}{N_8}$$



B

$$\frac{N_8 \cdot \left(\sqrt{(N_2 \cdot N_6 \cdot (N_3 + N_4))^2 + 4 \cdot N_1^2 \cdot N_4 \cdot N_5 \cdot ((N_3 \cdot N_6 - N_4 \cdot N_5) + N_4 \cdot N_6)} - (N_2 \cdot N_6 \cdot (N_3 + N_4))\right)}{2 \cdot N_1 \cdot N_7 \cdot ((N_3 \cdot N_6 - N_4 \cdot N_5) + N_4 \cdot N_6)} - R = 0.00000$$

$$R - \frac{N_8 \cdot \left[\sqrt{N_2^2 \cdot N_6^2 \cdot (N_3 + N_4)^2 + 4 \cdot N_1^2 \cdot N_4 \cdot N_5 \cdot (N_3 \cdot N_6 - N_4 \cdot N_5 + N_4 \cdot N_6)} - N_2 \cdot N_6 \cdot (N_3 + N_4)\right]}{2 \cdot N_1 \cdot N_7 \cdot (N_3 \cdot N_6 - N_4 \cdot N_5 + N_4 \cdot N_6)} = 0$$

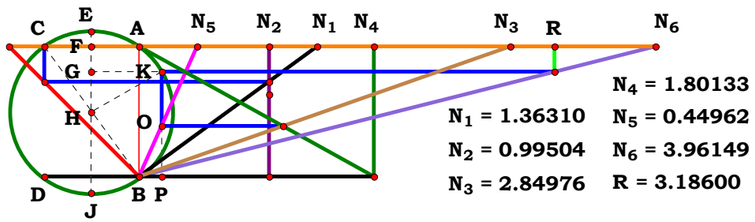
$$N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0 \quad N_4 - \frac{N_u}{D} = 0 \quad N_5 - \frac{N_u}{E} = 0 \quad N_6 - \frac{N_u}{F} = 0 \quad N_7 - \frac{N_u}{G} = 0 \quad N_8 - \frac{N_u}{H} = 0$$

$$R - \frac{G \cdot \left[\sqrt{E^2 \cdot A^2 \cdot (C + D)^2 + 4 \cdot E \cdot B^2 \cdot C \cdot F \cdot (C + D) - 4 \cdot B^2 \cdot C^2 \cdot F^2} - A \cdot E \cdot (C + D)\right]}{2 \cdot B \cdot H \cdot (C \cdot E - C \cdot F + D \cdot E)} = 0$$

$$N_1 - \frac{S}{h} = 0 \quad N_2 - \frac{T}{j} = 0 \quad N_3 - \frac{U}{k} = 0 \quad N_4 - \frac{V}{l} = 0 \quad N_5 - \frac{W}{m} = 0 \quad N_6 - \frac{X}{n} = 0 \quad N_7 - \frac{Y}{o} = 0 \quad N_8 - \frac{Z}{p} = 0$$

$$R - \frac{Z \cdot o \cdot \left[\sqrt{4 \cdot S^2 \cdot V \cdot W \cdot j^2 \cdot k \cdot n \cdot (U \cdot X \cdot l \cdot m - V \cdot W \cdot k \cdot n + V \cdot X \cdot k \cdot m) + T^2 \cdot X^2 \cdot h^2 \cdot m^2 \cdot (U \cdot l + V \cdot k)^2} - T \cdot X \cdot h \cdot m \cdot (U \cdot l + V \cdot k)\right]}{2 \cdot S \cdot Y \cdot j \cdot p \cdot (U \cdot X \cdot l \cdot m - V \cdot W \cdot k \cdot n + V \cdot X \cdot k \cdot m)} = 0$$

4RST6AB2R6



$N_4 = 1.80133$ $N_5 = 0.44962$
$N_1 = 1.36310$ $N_6 = 3.96149$
$N_2 = 0.99504$ $R = 3.18600$
$N_3 = 2.84976$

Unit. $AB := 1$ Given. $N_1 := 1.36310$ $N_2 := .99504$ $N_3 := 2.84976$

$N_4 := 1.80133$ $N_5 := .44962$ $N_6 := 3.96149$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $F := \frac{N_u}{N_6}$

$U := 18$ $V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$k := \frac{U}{N_1}$ $l := \frac{V}{N_2}$ $m := \frac{W}{N_3}$ $n := \frac{X}{N_4}$ $o := \frac{Y}{N_5}$ $p := \frac{Z}{N_6}$

Descriptions.

$AC := \frac{N_2}{N_1}$ $EJ := \sqrt{AB^2 + AC^2}$ $AF := \frac{AC}{2}$

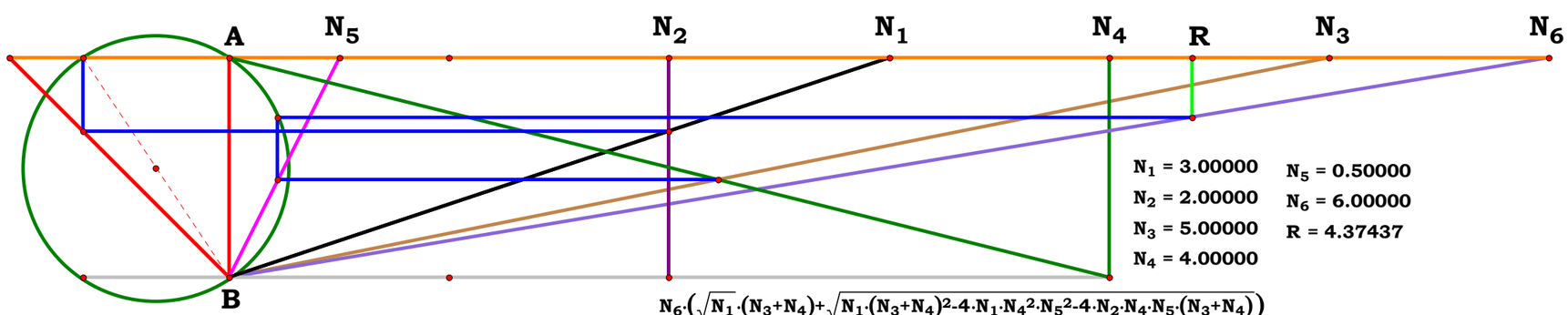
$EF := \frac{EJ - AB}{2}$ $HK := \frac{EJ}{2}$

$OP := \frac{N_4}{N_3 + N_4}$ $BP := N_5 \cdot OP$

$GK := AF + BP$ $GH := \sqrt{HK^2 - GK^2}$

$KP := GH + HK - EF$

$R := N_6 \cdot KP$ $R = 3.18599$



$N_1 = 3.00000$ $N_5 = 0.50000$
$N_2 = 2.00000$ $N_6 = 6.00000$
$N_3 = 5.00000$ $R = 4.37437$
$N_4 = 4.00000$

$$\frac{N_6 \cdot \left(\sqrt{N_1} \cdot (N_3+N_4) + \sqrt{N_1 \cdot (N_3+N_4)^2 - 4 \cdot N_1 \cdot N_4^2 \cdot N_5^2 - 4 \cdot N_2 \cdot N_4 \cdot N_5 \cdot (N_3+N_4)}\right)}{2 \cdot \sqrt{N_1} \cdot (N_3+N_4)} - R = 0.00000$$

Definitions.

$$R - \frac{N_6 \cdot \left[\sqrt{N_1} \cdot (N_3+N_4) + \sqrt{N_1 \cdot (N_3+N_4)^2 - 4 \cdot N_1 \cdot N_4^2 \cdot N_5^2 - 4 \cdot N_2 \cdot N_4 \cdot N_5 \cdot (N_3+N_4)}\right]}{2 \cdot \sqrt{N_1} \cdot (N_3+N_4)} = 0$$

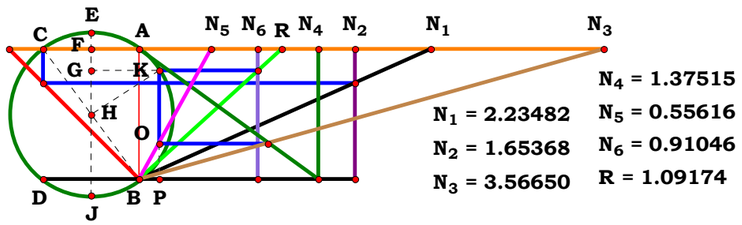
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$ $N_6 - \frac{N_u}{F} = 0$

$$R - \frac{\sqrt{N_u} \cdot \left[\sqrt{-N_u \cdot \left[4 \cdot B \cdot C^2 \cdot N_u^2 - B \cdot E^2 \cdot (C+D)^2 + 4 \cdot A \cdot C \cdot E \cdot N_u \cdot (C+D)\right]} + \sqrt{B} \cdot \sqrt{N_u} \cdot E \cdot (C+D)\right]}{2 \cdot F \cdot (C+D) \cdot \sqrt{B} \cdot E} = 0$$

$N_1 - \frac{U}{k} = 0$ $N_2 - \frac{V}{l} = 0$ $N_3 - \frac{W}{m} = 0$ $N_4 - \frac{X}{n} = 0$ $N_5 - \frac{Y}{o} = 0$ $N_6 - \frac{Z}{p} = 0$

$$R - \frac{Z \cdot \left[\sqrt{k} \cdot \sqrt{U \cdot l \cdot (W \cdot n \cdot o - 2 \cdot X \cdot Y \cdot m + X \cdot m \cdot o) \cdot (2 \cdot X \cdot Y \cdot m + W \cdot n \cdot o + X \cdot m \cdot o) - 4 \cdot V \cdot X \cdot Y \cdot k \cdot m \cdot o \cdot (W \cdot n + X \cdot m)} + \sqrt{k \cdot l} \cdot \sqrt{U} \cdot o \cdot (W \cdot n + X \cdot m)\right]}{2 \cdot \sqrt{U} \cdot p \cdot (W \cdot n + X \cdot m) \cdot \sqrt{k \cdot l} \cdot o} = 0$$

4RST6AB2R7



Unit. $AB := 1$ **Given.** $N_1 := 2.23482$ $N_2 := 1.65368$ $N_3 := 3.56650$

$N_4 := 1.37515$ $N_5 := .55616$ $N_6 := .91046$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $F := \frac{N_u}{N_6}$

$U := 18$ $V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$k := \frac{U}{N_1}$ $l := \frac{V}{N_2}$ $m := \frac{W}{N_3}$ $n := \frac{X}{N_4}$ $o := \frac{Y}{N_5}$ $p := \frac{Z}{N_6}$

Descriptions.

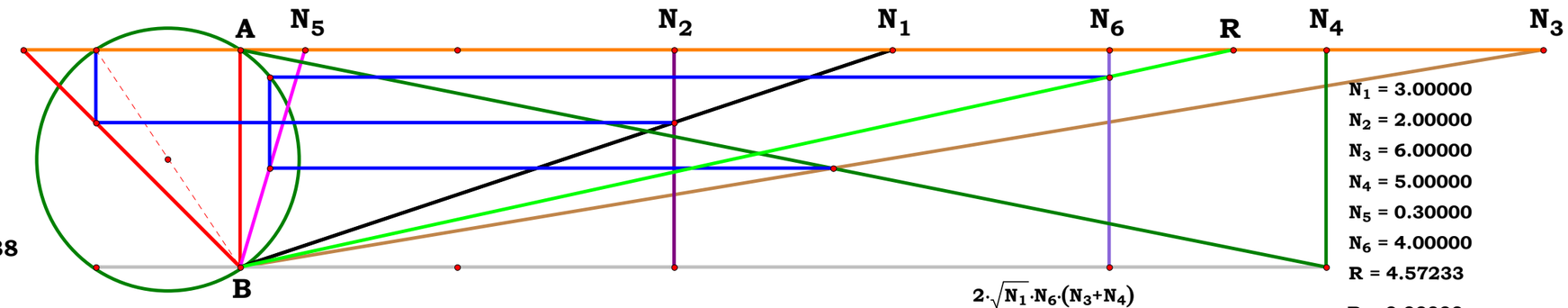
$AC := \frac{N_2}{N_1}$ $EJ := \sqrt{AB^2 + AC^2}$ $AF := \frac{AC}{2}$

$EF := \frac{EJ - AB}{2}$ $HK := \frac{EJ}{2}$

$OP := \frac{N_4}{N_3 + N_4}$ $BP := N_5 \cdot OP$

$GK := AF + BP$ $GH := \sqrt{HK^2 - GK^2}$

$KP := GH + HK - EF$ $R := \frac{N_6}{KP}$ $R = 1.091738$



Definitions.

$$R - \frac{2\cdot\sqrt{N_1}\cdot N_6\cdot(N_3+N_4)}{\sqrt{N_1}\cdot(N_3+N_4)+\sqrt{N_1\cdot(N_3+N_4)^2-4\cdot N_4\cdot N_5\cdot\left[N_2\cdot(N_3+N_4)+N_1\cdot N_4\cdot N_5\right]}} = 0$$

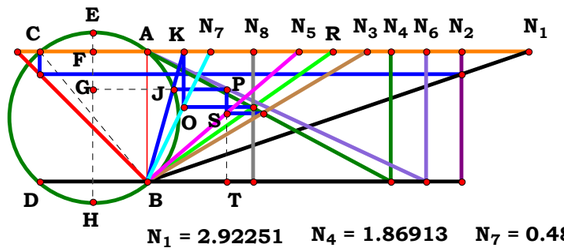
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$ $N_6 - \frac{N_u}{F} = 0$

$$R - \frac{2\cdot\left(\sqrt{N_u}\right)^3\cdot(C+D)\cdot\sqrt{B}\cdot E}{F\cdot\left[\sqrt{N_u}\cdot\left[E^2\cdot B\cdot(C+D)^2-4\cdot E\cdot A\cdot C\cdot N_u\cdot(C+D)-4\cdot B\cdot C^2\cdot N_u^2\right]+\sqrt{B}\cdot\sqrt{N_u}\cdot E\cdot(C+D)\right]} = 0$$

$N_1 - \frac{U}{k} = 0$ $N_2 - \frac{V}{l} = 0$ $N_3 - \frac{W}{m} = 0$ $N_4 - \frac{X}{n} = 0$ $N_5 - \frac{Y}{o} = 0$ $N_6 - \frac{Z}{p} = 0$

$$R - \frac{2\cdot\sqrt{U}\cdot Z\cdot o\cdot(W\cdot n+X\cdot m)\cdot\sqrt{k\cdot l}}{p\cdot\left[\sqrt{k}\cdot\sqrt{U\cdot l\cdot o^2\cdot(W\cdot n+X\cdot m)^2-4\cdot U\cdot X^2\cdot l\cdot m^2\cdot Y^2-4\cdot Y\cdot V\cdot X\cdot k\cdot m\cdot o\cdot(W\cdot n+X\cdot m)}+\sqrt{k\cdot l}\cdot\sqrt{U}\cdot o\cdot(W\cdot n+X\cdot m)\right]} = 0$$

4RST6AB2R8



$N_1 = 2.92251$ $N_4 = 1.86913$ $N_7 = 0.48626$
$N_2 = 2.40917$ $N_5 = 1.16636$ $N_8 = 0.81709$
$N_3 = 1.68746$ $N_6 = 2.14056$ $R = 1.42068$

Unit. $AB := 1$ **Given.** $N_1 := 2.92251$ $N_2 := 2.40917$ $N_3 := 1.68746$ $N_4 := 1.86913$

$N_5 := 1.16636$ $N_6 := 2.14056$ $N_7 := .48626$ $N_8 := .81709$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $F := \frac{N_u}{N_6}$ $G := \frac{N_u}{N_7}$ $H := \frac{N_u}{N_8}$

$S := 20$ $T := 19$ $U := 18$ $V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$h := \frac{S}{N_1}$ $j := \frac{T}{N_2}$ $k := \frac{Y}{N_3}$ $l := \frac{V}{N_4}$ $m := \frac{W}{N_5}$ $n := \frac{X}{N_6}$ $o := \frac{Y}{N_7}$ $p := \frac{Z}{N_8}$

Descriptions.

$AC := \frac{N_2}{N_1}$ $EH := \sqrt{AB^2 + AC^2}$

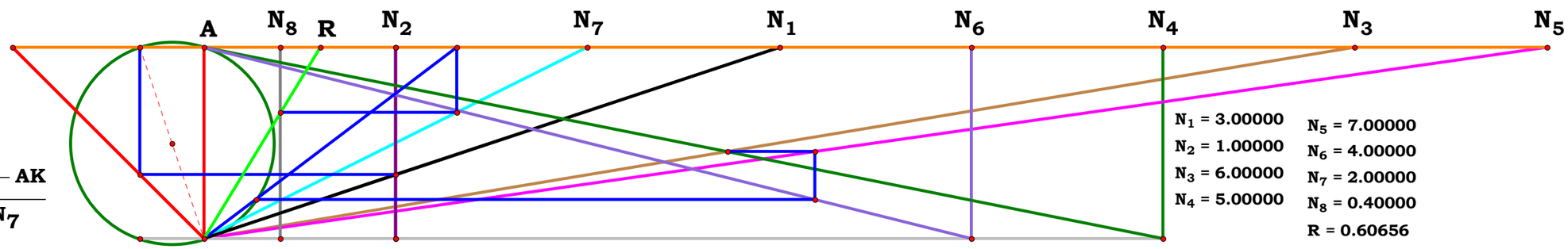
$AF := \frac{AC}{2}$ $EF := \frac{EH - AB}{2}$ $ST := \frac{N_4}{N_3 + N_4}$ $BT := N_5 \cdot ST$

$PT := \frac{N_6 - BT}{N_6}$

$GH := PT + EF$

$GJ := \sqrt{GH \cdot (EH - GH)}$

$AK := \frac{GJ - AF}{PT}$ $KO := \frac{N_7 - AK}{N_7}$



$N_1 = 3.00000$ $N_5 = 7.00000$
$N_2 = 1.00000$ $N_6 = 4.00000$
$N_3 = 6.00000$ $N_7 = 2.00000$
$N_4 = 5.00000$ $N_8 = 0.40000$
$R = 0.60656$

$R := \frac{N_8}{AB - KO}$ $R = 1.420686$

B

$$\frac{(2 \cdot N_1 \cdot N_7 \cdot N_8 \cdot ((N_3 \cdot N_6 - N_4 \cdot N_5) + N_4 \cdot N_6))}{\sqrt{(N_2 \cdot N_6 \cdot (N_3 + N_4))^2 + 4 \cdot N_1^2 \cdot N_4 \cdot N_5 \cdot ((N_3 \cdot N_6 - N_4 \cdot N_5) + N_4 \cdot N_6)} - (N_2 \cdot N_6 \cdot (N_3 + N_4))} - R = 0.00000$$

Definitions.

$$R - \frac{2 \cdot N_1 \cdot N_7 \cdot N_8 \cdot (N_3 \cdot N_6 - N_4 \cdot N_5 + N_4 \cdot N_6)}{\sqrt{N_2^2 \cdot N_6^2 \cdot (N_3 + N_4)^2 + 4 \cdot N_1^2 \cdot N_4 \cdot N_5 \cdot (N_3 \cdot N_6 - N_4 \cdot N_5 + N_4 \cdot N_6)} - N_2 \cdot N_6 \cdot (N_3 + N_4)} = 0$$

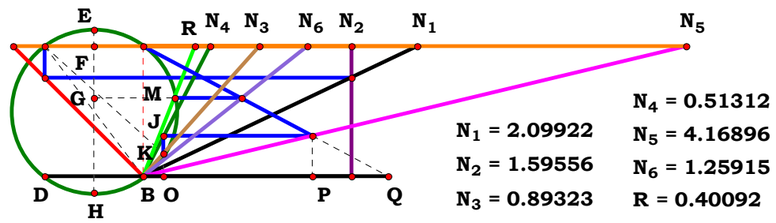
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$ $N_6 - \frac{N_u}{F} = 0$ $N_7 - \frac{N_u}{G} = 0$ $N_8 - \frac{N_u}{H} = 0$

$$R - \frac{2 \cdot B \cdot N_u^2 \cdot (C \cdot E - C \cdot F + D \cdot E)}{G \cdot H \cdot \left[\sqrt{E^2 \cdot A^2 \cdot (C + D)^2 + 4 \cdot E \cdot B^2 \cdot C \cdot F \cdot (C + D) - 4 \cdot B^2 \cdot C^2 \cdot F^2} - A \cdot E \cdot (C + D)\right]} = 0$$

$N_1 - \frac{S}{h} = 0$ $N_2 - \frac{T}{j} = 0$ $N_3 - \frac{U}{k} = 0$ $N_4 - \frac{V}{l} = 0$ $N_5 - \frac{W}{m} = 0$ $N_6 - \frac{X}{n} = 0$ $N_7 - \frac{Y}{o} = 0$ $N_8 - \frac{Z}{p} = 0$

$$R - \frac{2 \cdot S \cdot Y \cdot Z \cdot j \cdot (U \cdot X \cdot l \cdot m - V \cdot W \cdot k \cdot n + V \cdot X \cdot k \cdot m)}{o \cdot p \cdot \left[\sqrt{4 \cdot S^2 \cdot V \cdot W \cdot j^2 \cdot k \cdot n \cdot (U \cdot X \cdot l \cdot m - V \cdot W \cdot k \cdot n + V \cdot X \cdot k \cdot m) + T^2 \cdot X^2 \cdot h^2 \cdot m^2 \cdot (U \cdot l + V \cdot k)^2} - T \cdot X \cdot h \cdot m \cdot (U \cdot l + V \cdot k)\right]} = 0$$

4RST6AB2R9



$N_1 = 2.09922$
$N_2 = 1.59556$
$N_3 = 0.89323$
$N_4 = 0.51312$
$N_5 = 4.16896$
$N_6 = 1.25915$
$R = 0.40092$

Unit. $AB := 1$ Given. $N_1 := 2.09922$ $N_2 := 1.59556$ $N_3 := .89323$

$N_4 := .51312$ $N_5 := 4.16896$ $N_6 := 1.25915$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $F := \frac{N_u}{N_6}$

$U := 18$ $V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$k := \frac{U}{N_1}$ $l := \frac{V}{N_2}$ $m := \frac{W}{N_3}$ $n := \frac{X}{N_4}$ $o := \frac{Y}{N_5}$ $p := \frac{Z}{N_6}$

Descriptions.

$AC := \frac{N_2}{N_1}$ $EH := \sqrt{AB^2 + AC^2}$

$AF := \frac{AC}{2}$ $EF := \frac{EH - AB}{2}$

$BN_3 := \sqrt{N_3^2 + AB^2}$ $CN_3 := N_3 + AC$

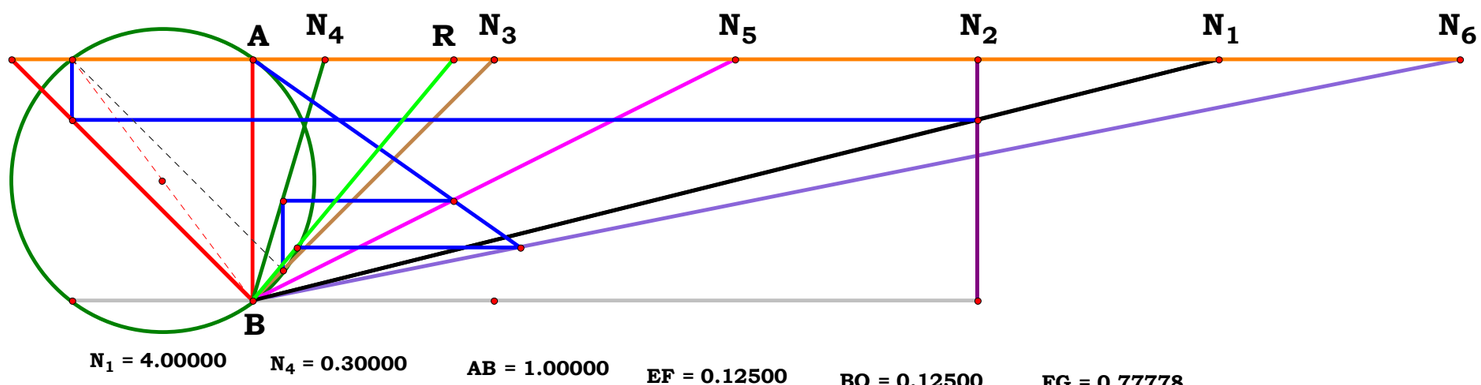
$KN_3 := \frac{N_3 \cdot CN_3}{BN_3}$ $BO := \frac{N_3 \cdot (BN_3 - KN_3)}{BN_3}$

$JO := \frac{BO}{N_4}$ $BP := N_5 \cdot JO$

$BQ := \frac{BP \cdot AB}{AB - JO}$ $FG := \frac{N_6}{BQ + N_6}$

$EG := FG + EF$ $GM := \sqrt{EG \cdot (EH - EG)}$

$R := \frac{GM - AF}{AB - FG}$ $R = 0.400923$



$N_1 = 4.00000$
$N_2 = 3.00000$
$N_3 = 1.00000$
$N_4 = 0.30000$
$N_5 = 2.00000$
$N_6 = 5.00000$
$R = 0.83196$
$AB = 1.00000$
$AC = 0.75000$
$EH = 1.25000$
$AF = 0.37500$
$EF = 0.12500$
$BN_3 = 1.41421$
$CN_3 = 1.75000$
$KN_3 = 1.23744$
$BO = 0.12500$
$JO = 0.41667$
$BP = 0.83333$
$BQ = 1.42857$
$FG = 0.77778$
$EG = 0.90278$
$GM = 0.55988$
$R - \frac{GM - AF}{AB - FG} = 0.00000$

Definitions.

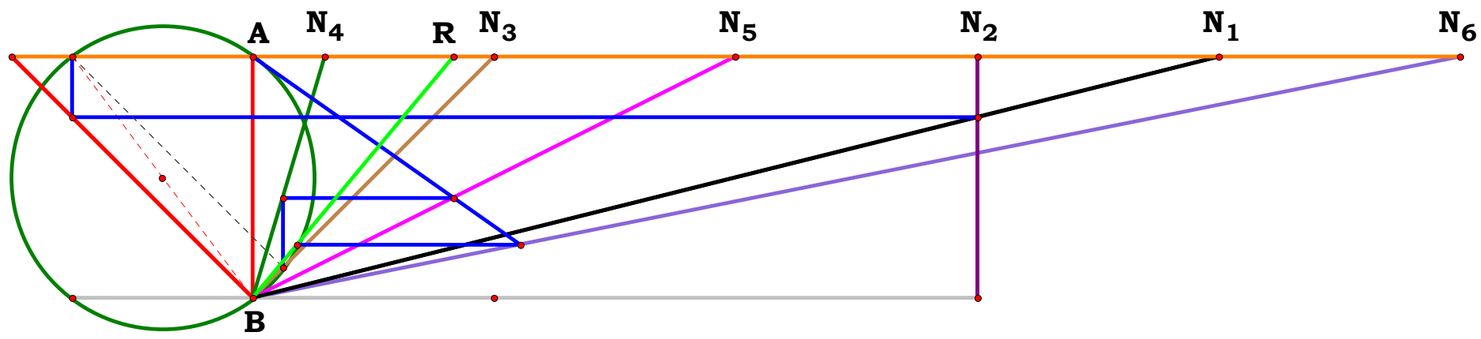
$$R - \frac{\begin{array}{l}\sqrt{N_1^2 \cdot N_2^2 \cdot N_4^2 \cdot N_6^2 \cdot \left(N_3^2 + 1\right)^2 - N_3^2 \cdot \left(N_1 - N_2 \cdot N_3\right)^2 \cdot \left[2 \cdot N_5 \cdot N_6 \cdot \left(2 \cdot N_1^2 + N_2^2\right) - N_2^2 \cdot \left(N_5^2 + N_6^2\right)\right]} \ \ldots \cdot N_1^2 \ \ldots \\ + \ 2 \cdot N_1 \cdot N_3 \cdot N_4 \cdot N_6 \cdot \left(N_1 - N_2 \cdot N_3\right) \cdot \left(N_3^2 + 1\right) \cdot \left(2 \cdot N_1^2 \cdot N_5 + N_2^2 \cdot N_5 - N_2^2 \cdot N_6\right) \\ + \ -\sqrt{N_1^4} \cdot N_2 \cdot \left[N_1 \cdot N_4 \cdot N_6 \cdot \left(N_3^2 + 1\right) + N_3 \cdot \left(N_5 - N_6\right) \cdot \left(N_1 - N_2 \cdot N_3\right)\right]\end{array}}{2 \cdot N_1 \cdot N_3 \cdot N_5 \cdot \left(N_1 - N_2 \cdot N_3\right) \cdot \sqrt{N_1^4}} = 0$$

$$N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0 \quad N_4 - \frac{N_u}{D} = 0 \quad N_5 - \frac{N_u}{E} = 0 \quad N_6 - \frac{N_u}{F} = 0$$

$$R - \frac{A \cdot F \cdot D \cdot \left(B \cdot C - A \cdot N_u\right) + A \cdot E \cdot \left(B \cdot C^2 - B \cdot D \cdot C + B \cdot {N_u}^2 + A \cdot D \cdot N_u\right) - \sqrt{\begin{matrix} A^2 \cdot E^2 \cdot \left(B \cdot C^2 - B \cdot D \cdot C + B \cdot {N_u}^2 + A \cdot D \cdot N_u\right)^2 + A^2 \cdot D^2 \cdot F^2 \cdot \left(B \cdot C - A \cdot N_u\right)^2 \ \ldots \\ + \ 2 \cdot D \cdot E \cdot F \cdot \left(A^2 + 2 \cdot B^2\right) \cdot \left(B \cdot C - A \cdot N_u\right) \cdot \left(B \cdot C^2 - B \cdot D \cdot C + B \cdot {N_u}^2 + A \cdot D \cdot N_u\right) \end{matrix}}}{2 \cdot B \cdot D \cdot F \cdot \left(A \cdot N_u - B \cdot C\right)} = 0$$

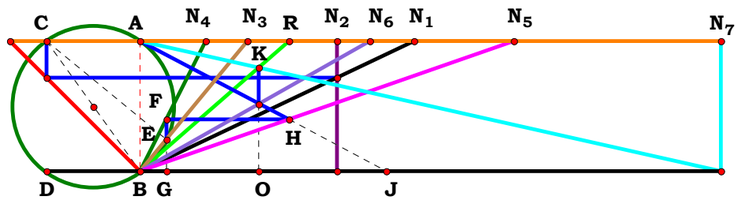
$$N_1 - \frac{U}{k} = 0 \quad N_2 - \frac{V}{l} = 0 \quad N_3 - \frac{W}{m} = 0 \quad N_4 - \frac{X}{n} = 0 \quad N_5 - \frac{Y}{o} = 0 \quad N_6 - \frac{Z}{p} = 0$$

$$R - \frac{\begin{matrix} \sqrt{\begin{matrix} X^2 \cdot U^2 \cdot V^2 \cdot Z^2 \cdot k^2 \cdot l^2 \cdot o^2 \cdot \left(W^2 + m^2\right)^2 \ \ldots \\ + \ 2 \cdot X \cdot U \cdot W \cdot Z \cdot l \cdot n \cdot o \cdot \left(W^2 + m^2\right) \cdot (U \cdot l \cdot m - V \cdot W \cdot k) \cdot \left(2 \cdot U^2 \cdot Y \cdot l^2 \cdot p + V^2 \cdot Y \cdot k^2 \cdot p - V^2 \cdot Z \cdot k^2 \cdot o\right) \ \ldots \\ + \ -W^2 \cdot n^2 \cdot (U \cdot l \cdot m - V \cdot W \cdot k)^2 \cdot \left(4 \cdot U^2 \cdot Y \cdot Z \cdot l^2 \cdot o \cdot p - V^2 \cdot Y^2 \cdot k^2 \cdot p^2 + 2 \cdot V^2 \cdot Y \cdot Z \cdot k^2 \cdot o \cdot p - V^2 \cdot Z^2 \cdot k^2 \cdot o^2\right) \end{matrix}} \\ - V \cdot k \cdot \begin{bmatrix} U \cdot l \cdot \begin{bmatrix} X \cdot Z \cdot o \cdot \left(W^2 + m^2\right) \ \ldots \\ + \ W \cdot m \cdot n \cdot (Y \cdot p - Z \cdot o) \end{bmatrix} \ \ldots \\ + \ -V \cdot W^2 \cdot k \cdot n \cdot (Y \cdot p - Z \cdot o) \end{bmatrix} \end{matrix}}{2 \cdot U \cdot W \cdot Y \cdot l \cdot n \cdot p \cdot (U \cdot l \cdot m - V \cdot W \cdot k)} = 0$$



$N_1 = 4.00000$	$N_4 = 0.30000$	AB = 1.00000	EF = 0.12500	BO = 0.12500	FG = 0.77778
$N_2 = 3.00000$	$N_5 = 2.00000$	AC = 0.75000	$BN_3 = 1.41421$	JO = 0.41667	EG = 0.90278
$N_3 = 1.00000$	$N_6 = 5.00000$	EH = 1.25000	$CN_3 = 1.75000$	BP = 0.83333	GM = 0.55988
	R = 0.83196	AF = 0.37500	$KN_3 = 1.23744$	BQ = 1.42857	$R - \frac{GM - AF}{AB - FG} = 0.00000$

4RST6AB2R10



$N_1 = 2.09922$ $N_3 = 0.82543$ $N_5 = 2.87106$ $N_7 = 4.45743$

$N_2 = 1.50839$ $N_4 = 0.50343$ $N_6 = 1.76281$ $R = 1.14623$

Unit. $AB := 1$ **Given.** $N_1 := 2.09922$ $N_2 := 1.50839$ $N_3 := .82543$ $N_4 := .50343$

$N_5 := 2.87106$ $N_6 := 1.76281$ $N_7 := 4.45743$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $F := \frac{N_u}{N_6}$ $G := \frac{N_u}{N_7}$

$T := 19$ $U := 18$ $V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$j := \frac{T}{N_1}$ $k := \frac{U}{N_2}$ $l := \frac{V}{N_3}$ $m := \frac{W}{N_4}$ $n := \frac{X}{N_5}$ $o := \frac{Y}{N_6}$ $p := \frac{Z}{N_7}$

Descriptions.

$AC := \frac{N_2}{N_1}$ $BN_3 := \sqrt{AB^2 + N_3^2}$

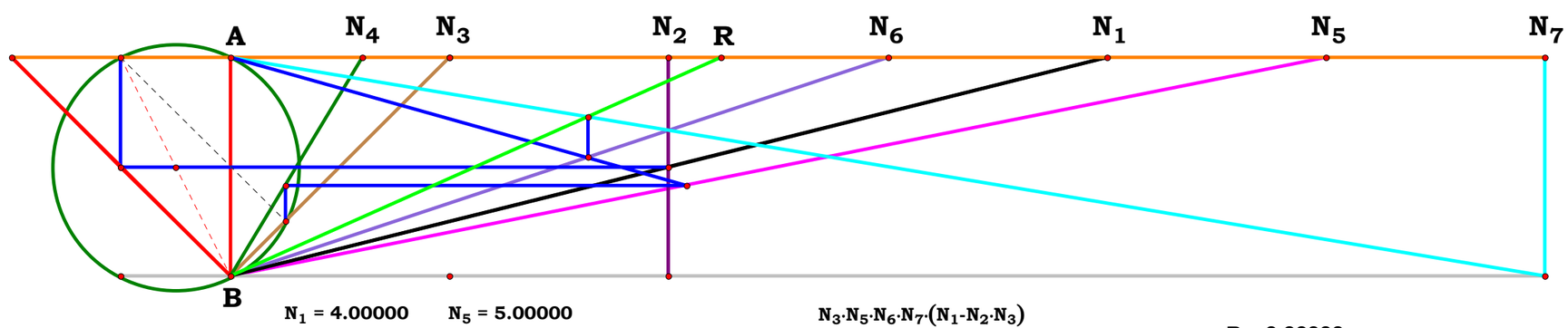
$CN_3 := N_3 + AC$ $EN_3 := \frac{N_3 \cdot CN_3}{BN_3}$

$BG := \frac{N_3 \cdot (BN_3 - EN_3)}{BN_3}$ $FG := \frac{BG}{N_4}$

$FH := N_5 \cdot FG$ $BJ := \frac{FH}{(AB - FG)}$

$BO := \frac{N_6 \cdot BJ}{N_6 + BJ}$ $KO := \frac{N_7 - BO}{N_7}$

$R := \frac{BO}{KO}$ $R = 1.146228$



$N_1 = 4.00000$ $N_5 = 5.00000$

$N_2 = 2.00000$ $N_6 = 3.00000$

$N_3 = 1.00000$ $N_7 = 6.00000$

$N_4 = 0.60000$ $R = 2.23881$

$$\frac{N_3 \cdot N_5 \cdot N_6 \cdot N_7 \cdot (N_1 - N_2 \cdot N_3)}{N_6 \cdot N_7 \cdot (N_1 \cdot N_4 \cdot (N_3^2+1) - N_3 \cdot (N_1 - N_2 \cdot N_3)) - N_3 \cdot N_5 \cdot (N_6 - N_7) \cdot (N_1 - N_2 \cdot N_3)} - R = 0.00000$$

Definitions.

$$R - \frac{N_3 \cdot N_5 \cdot N_6 \cdot N_7 \cdot (N_1 - N_2 \cdot N_3)}{N_6 \cdot N_7 \cdot \left[N_1 \cdot N_4 \cdot \left(N_3^2 + 1\right) - N_3 \cdot (N_1 - N_2 \cdot N_3)\right] - N_3 \cdot N_5 \cdot (N_6 - N_7) \cdot (N_1 - N_2 \cdot N_3)} = 0$$

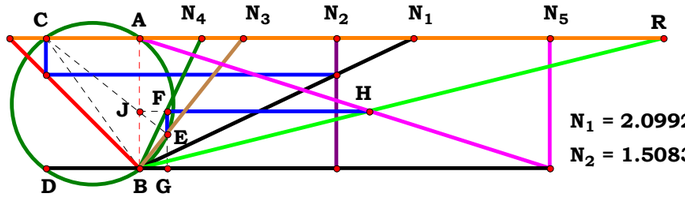
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$ $N_6 - \frac{N_u}{F} = 0$ $N_7 - \frac{N_u}{G} = 0$

$$R - \frac{D \cdot N_u \cdot (B \cdot C - A \cdot N_u)}{E \cdot \left[B \cdot C \cdot (C - D) + N_u \cdot (A \cdot D + B \cdot N_u)\right] + D \cdot (F - G) \cdot (B \cdot C - A \cdot N_u)} = 0$$

$N_1 - \frac{T}{j} = 0$ $N_2 - \frac{U}{k} = 0$ $N_3 - \frac{V}{l} = 0$ $N_4 - \frac{W}{m} = 0$ $N_5 - \frac{X}{n} = 0$ $N_6 - \frac{Y}{o} = 0$ $N_7 - \frac{Z}{p} = 0$

$$R - \frac{V \cdot X \cdot Y \cdot Z \cdot m \cdot (T \cdot k \cdot l - U \cdot V \cdot j)}{W \cdot T \cdot Y \cdot Z \cdot k \cdot n \cdot \left(V^2 + l^2\right) + V \cdot m \cdot (X \cdot Y \cdot p - X \cdot Z \cdot o + Y \cdot Z \cdot n) \cdot (U \cdot V \cdot j - T \cdot k \cdot l)} = 0$$

4RST6AB2R11



$N_3 = 0.79637$
$N_4 = 0.47437$
$N_1 = 2.09922$ $N_5 = 3.15195$
$N_2 = 1.50839$ $R = 4.02072$

Unit. $AB := 1$ **Given.** $N_1 := 2.09922$ $N_2 := 1.50839$ $N_3 := .79637$

$N_4 := .47437$ $N_5 := 3.15195$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$

$V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$l := \frac{V}{N_1}$ $m := \frac{W}{N_2}$ $n := \frac{X}{N_3}$ $o := \frac{Y}{N_4}$ $p := \frac{Z}{N_5}$

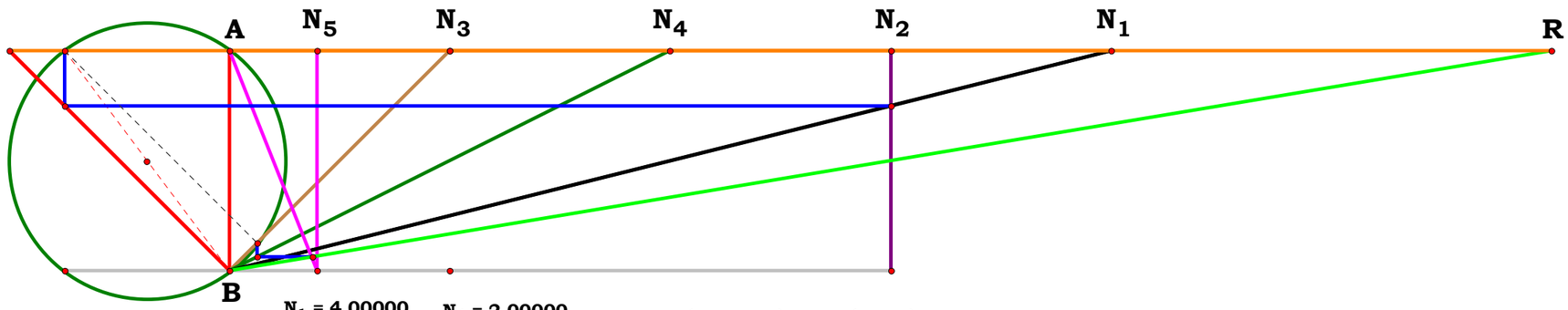
Descriptions.

$AC := \frac{N_2}{N_1}$ $BN_3 := \sqrt{N_3^2 + AB^2}$ $CN_3 := N_3 + AC$

$EN_3 := \frac{N_3 \cdot CN_3}{BN_3}$ $BG := \frac{N_3 \cdot (BN_3 - EN_3)}{BN_3}$

$FG := \frac{BG}{N_4}$ $HJ := N_5 \cdot (AB - FG)$

$R := \frac{HJ}{FG}$ $R = 4.02067$



$N_1 = 4.00000$ $N_4 = 2.00000$ $\frac{N_3^2 \cdot N_5 \cdot (N_2 + N_1 \cdot N_4) - N_1 \cdot N_5 \cdot (N_3 - N_4)}{N_3 \cdot (N_1 - N_2 \cdot N_3)} - R = 0.00000$

$N_2 = 3.00000$ $N_5 = 0.40000$

$N_3 = 1.00000$ $R = 6.00000$

Definitions.

$$R - \frac{N_3^2 \cdot N_5 \cdot (N_2 + N_1 \cdot N_4) - N_1 \cdot N_5 \cdot (N_3 - N_4)}{N_3 \cdot (N_1 - N_2 \cdot N_3)} = 0$$

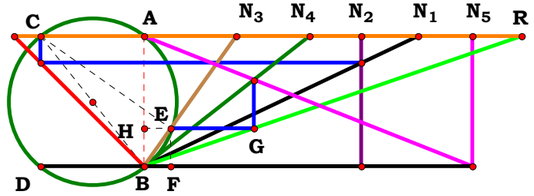
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$

$$R - \frac{N_u \cdot [B \cdot C \cdot (C - D) + B \cdot N_u^2 + A \cdot D \cdot N_u]}{D \cdot E \cdot (B \cdot C - A \cdot N_u)} = 0$$

$N_1 - \frac{V}{l} = 0$ $N_2 - \frac{W}{m} = 0$ $N_3 - \frac{X}{n} = 0$ $N_4 - \frac{Y}{o} = 0$ $N_5 - \frac{Z}{p} = 0$

$$R - \frac{Z \cdot (V \cdot X^2 \cdot Y \cdot m + V \cdot Y \cdot m \cdot n^2 + W \cdot X^2 \cdot l \cdot o - V \cdot X \cdot m \cdot n \cdot o)}{X \cdot o \cdot p \cdot (V \cdot m \cdot n - W \cdot X \cdot l)} = 0$$

4RST6AB2R12



$N_1 = 2.09922$
$N_2 = 1.66336$
$N_3 = 0.70920$
$N_4 = 1.26861$
$N_5 = 2.52237$
$R = 2.89606$

Unit. $AB := 1$ Given. $N_1 := 2.09922$ $N_2 := 1.66336$ $N_3 := .70920$

$N_4 := 1.26861$ $N_5 := 2.52237$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$

$V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$l := \frac{V}{N_1}$ $m := \frac{W}{N_2}$ $n := \frac{X}{N_3}$ $o := \frac{Y}{N_4}$ $p := \frac{Z}{N_5}$

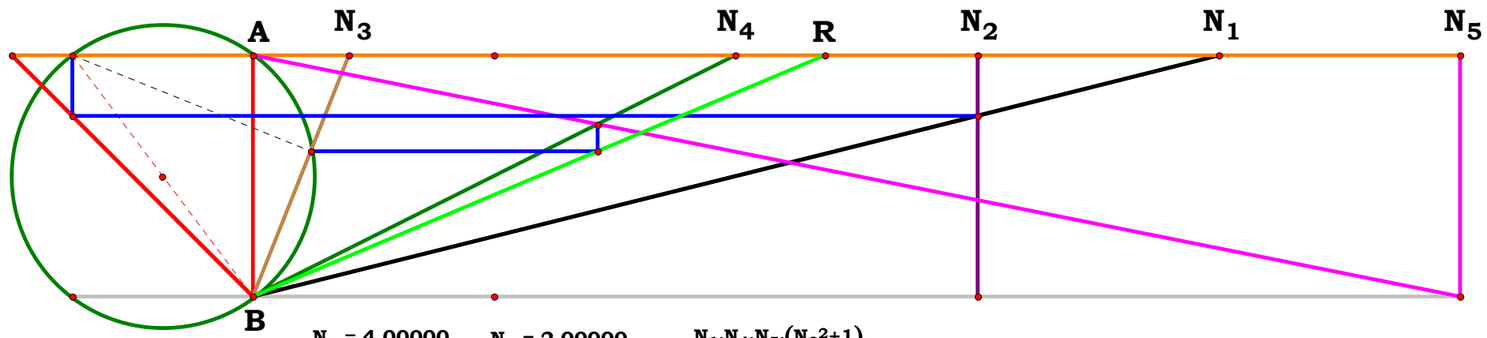
Descriptions.

$AC := \frac{N_2}{N_1}$ $BN_3 := \sqrt{N_3^2 + AB^2}$

$CN_3 := N_3 + AC$ $EN_3 := \frac{N_3 \cdot CN_3}{BN_3}$

$EF := \frac{(BN_3 - EN_3)}{BN_3}$ $HG := \frac{N_5 \cdot N_4}{N_5 + N_4}$

$R := \frac{HG}{EF}$ $R = 2.896074$



$N_1 = 4.00000$ $N_4 = 2.00000$ $\frac{N_1 \cdot N_4 \cdot N_5 \cdot (N_3^2+1)}{(N_1 - N_2 \cdot N_3) \cdot (N_4 + N_5)} - R = 0.00000$

$N_2 = 3.00000$ $N_5 = 5.00000$

$N_3 = 0.40000$ $R = 2.36735$

Definitions.

$$R - \frac{N_1 \cdot N_4 \cdot N_5 \cdot (N_3^2 + 1)}{(N_1 - N_2 \cdot N_3) \cdot (N_4 + N_5)} = 0$$

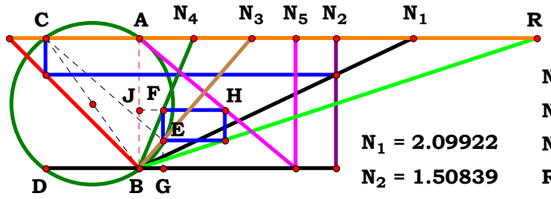
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$

$$R - \frac{B \cdot N_u \cdot (C^2 + N_u^2)}{C \cdot (D + E) \cdot (B \cdot C - A \cdot N_u)} = 0$$

$N_1 - \frac{V}{l} = 0$ $N_2 - \frac{W}{m} = 0$ $N_3 - \frac{X}{n} = 0$ $N_4 - \frac{Y}{o} = 0$ $N_5 - \frac{Z}{p} = 0$

$$R - \frac{V \cdot Y \cdot Z \cdot m \cdot (X^2 + n^2)}{n \cdot (V \cdot m \cdot n - W \cdot X \cdot l) \cdot (Y \cdot p + Z \cdot o)} = 0$$

4RST6AB2R13



$N_3 = 0.86417$
$N_4 = 0.41626$
$N_5 = 1.20511$
$N_1 = 2.09922$
$N_2 = 1.50839$
$R = 3.05165$

Unit. $AB := 1$ **Given.** $N_1 := 2.09922$ $N_2 := 1.50839$ $N_3 := .86417$

$N_4 := .41626$ $N_5 := 1.20511$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$

$V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$l := \frac{V}{N_1}$ $m := \frac{W}{N_2}$ $n := \frac{X}{N_3}$ $o := \frac{Y}{N_4}$ $p := \frac{Z}{N_5}$

Descriptions.

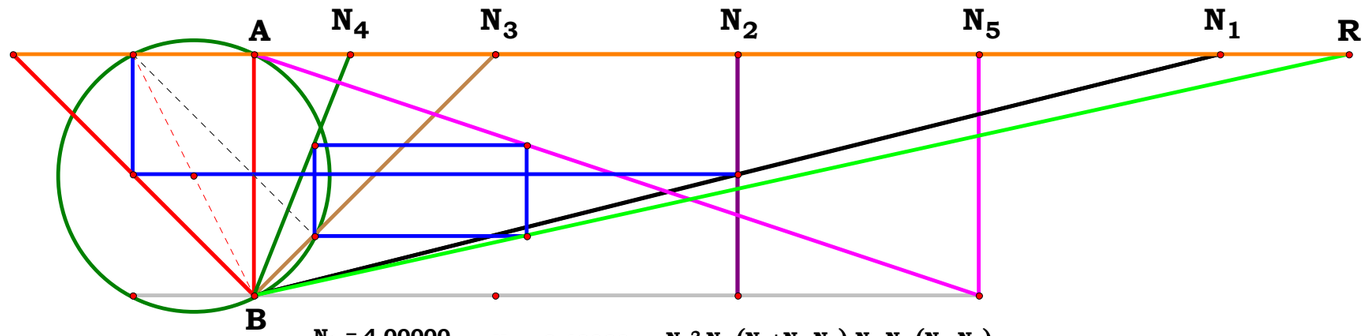
$AC := \frac{N_2}{N_1}$ $BN_3 := \sqrt{N_3^2 + AB^2}$

$CN_3 := N_3 + AC$ $EN_3 := \frac{N_3 \cdot CN_3}{BN_3}$

$BG := \frac{N_3 \cdot (BN_3 - EN_3)}{BN_3}$ $FG := \frac{BG}{N_4}$

$JH := N_5 \cdot (AB - FG)$ $EG := \frac{BN_3 - EN_3}{BN_3}$

$R := \frac{JH}{EG}$ $R = 3.051666$



$N_1 = 4.00000$
$N_2 = 2.00523$
$N_3 = 1.00000$
$N_4 = 0.40000$
$N_5 = 3.00000$
$R = 4.53146$

$\frac{N_3^2 \cdot N_5 \cdot (N_2 + N_1 \cdot N_4) - N_1 \cdot N_5 \cdot (N_3 - N_4)}{N_1 \cdot N_4 - N_2 \cdot N_3 \cdot N_4} - R = 0.00000$

Definitions.

$$R - \frac{N_3^2 \cdot N_5 \cdot (N_2 + N_1 \cdot N_4) - N_1 \cdot N_5 \cdot (N_3 - N_4)}{N_1 \cdot N_4 - N_2 \cdot N_3 \cdot N_4} = 0$$

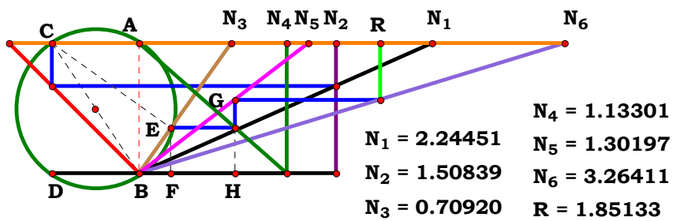
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$

$$R - \frac{N_u \cdot (B \cdot C^2 - B \cdot D \cdot C + B \cdot N_u^2 + A \cdot D \cdot N_u)}{C \cdot E \cdot (B \cdot C - A \cdot N_u)} = 0$$

$N_1 - \frac{V}{l} = 0$ $N_2 - \frac{W}{m} = 0$ $N_3 - \frac{X}{n} = 0$ $N_4 - \frac{Y}{o} = 0$ $N_5 - \frac{Z}{p} = 0$

$$R - \frac{Z \cdot [V \cdot Y \cdot m \cdot (X^2 + n^2) + X \cdot o \cdot (W \cdot X \cdot l - V \cdot m \cdot n)]}{V \cdot Y \cdot m \cdot n^2 \cdot p - W \cdot X \cdot Y \cdot l \cdot n \cdot p} = 0$$

4RST6AB2R14



$N_1 = 2.24451$ $N_2 = 1.50839$ $N_3 = 0.70920$ $N_4 = 1.13301$ $N_5 = 1.30197$ $N_6 = 3.26411$ $R = 1.85133$

Unit. $AB := 1$ **Given.** $N_1 := 2.24451$ $N_2 := 1.50839$ $N_3 := .70920$ $N_4 := 1.13301$ $N_5 := 1.30197$ $N_6 := 3.26411$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $F := \frac{N_u}{N_6}$

$U := 18$ $V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$k := \frac{U}{N_1}$ $l := \frac{V}{N_2}$ $m := \frac{W}{N_3}$ $n := \frac{X}{N_4}$ $o := \frac{Y}{N_5}$ $p := \frac{Z}{N_6}$

Descriptions.

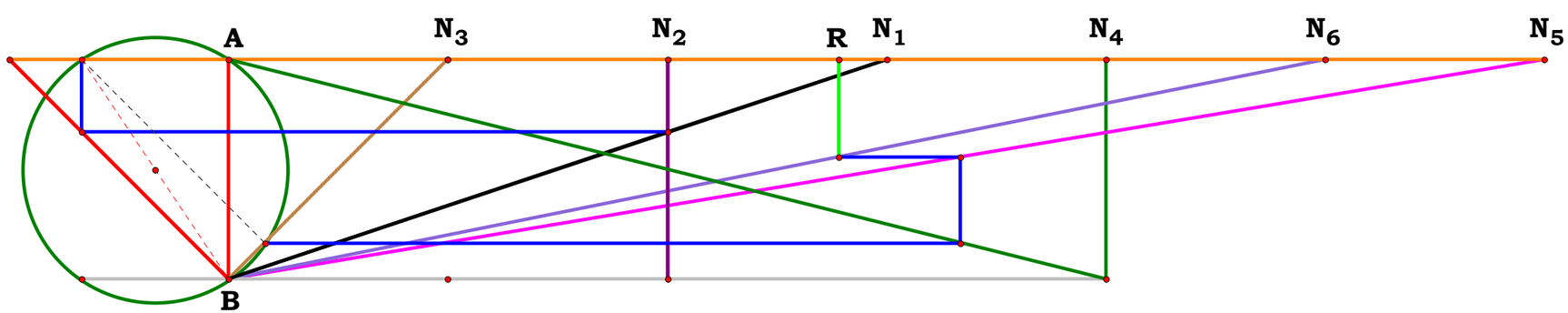
$AC := \frac{N_2}{N_1}$ $BN_3 := \sqrt{N_3^2 + AB^2}$

$CN_3 := N_3 + AC$ $EN_3 := \frac{N_3 \cdot CN_3}{BN_3}$

$EF := \frac{BN_3 - EN_3}{BN_3}$ $BH := N_4 \cdot (AB - EF)$

$GH := \frac{BH}{N_5}$ $R := N_6 \cdot GH$

$R = 1.851336$



Definitions.

$N_1 = 3.00000$ $N_2 = 2.00523$ $N_3 = 1.00000$ $N_4 = 4.00000$ $N_5 = 6.00000$ $N_6 = 5.00000$ $R = 2.78068$

$\frac{N_3 \cdot N_4 \cdot N_6 \cdot (N_2 + N_1 \cdot N_3)}{N_1 \cdot N_5 \cdot (N_3^2 + 1)} - R = 0.00000$

$$R - \frac{N_3 \cdot N_4 \cdot N_6 \cdot \left(N_2 + N_1 \cdot N_3\right)}{N_1 \cdot N_5 \cdot \left(N_3^2 + 1\right)} = 0$$

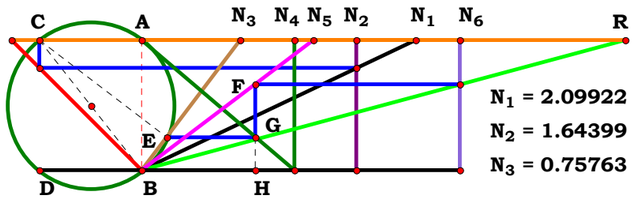
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$ $N_6 - \frac{N_u}{F} = 0$

$$R - \frac{E \cdot N_u^2 \cdot \left(A \cdot C + B \cdot N_u\right)}{F \cdot \left[B \cdot D \cdot \left(C^2 + N_u^2\right)\right]} = 0$$

$N_1 - \frac{U}{k} = 0$ $N_2 - \frac{V}{l} = 0$ $N_3 - \frac{W}{m} = 0$ $N_4 - \frac{X}{n} = 0$ $N_5 - \frac{Y}{o} = 0$ $N_6 - \frac{Z}{p} = 0$

$$R - \frac{W \cdot X \cdot Z \cdot o \cdot (U \cdot W \cdot l + V \cdot k \cdot m)}{p \cdot \left(U \cdot Y \cdot l \cdot n \cdot W^2 + U \cdot Y \cdot l \cdot n \cdot m^2\right)} = 0$$

4RST6AB2R15



$N_1 = 2.09922$
$N_2 = 1.64399$
$N_3 = 0.75763$
$N_4 = 1.17175$
$N_5 = 1.32134$
$N_6 = 2.44082$
$R = 3.71129$

Descriptions.

$$AC := \frac{N_2}{N_1} \qquad BN_3 := \sqrt{N_3^2 + AB^2}$$

$$CN_3 := N_3 + AC \qquad EN_3 := \frac{N_3 \cdot CN_3}{BN_3}$$

$$GH := \frac{BN_3 - EN_3}{BN_3} \qquad BH := N_4 \cdot (AB - GH)$$

$$FH := \frac{BH}{N_5} \qquad R := \frac{N_6}{FH} \qquad R = 3.711292$$

Definitions.

$$R - \frac{N_1 \cdot N_5 \cdot N_6 \cdot \left(N_3^2 + 1\right)}{N_3 \cdot N_4 \cdot \left(N_2 + N_1 \cdot N_3\right)} = 0$$

$$N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0 \quad N_4 - \frac{N_u}{D} = 0 \quad N_5 - \frac{N_u}{E} = 0 \quad N_6 - \frac{N_u}{F} = 0$$

$$R - \frac{B \cdot D \cdot \left(C^2 + N_u^2\right)}{E \cdot F \cdot \left(A \cdot C + B \cdot N_u\right)} = 0$$

$$N_1 - \frac{U}{k} = 0 \quad N_2 - \frac{V}{l} = 0 \quad N_3 - \frac{W}{m} = 0 \quad N_4 - \frac{X}{n} = 0 \quad N_5 - \frac{Y}{o} = 0 \quad N_6 - \frac{Z}{p} = 0$$

$$R - \frac{U \cdot Y \cdot Z \cdot l \cdot n \cdot \left(W^2 + m^2\right)}{o \cdot p \cdot W \cdot X \cdot (U \cdot W \cdot l + V \cdot k \cdot m)} = 0$$

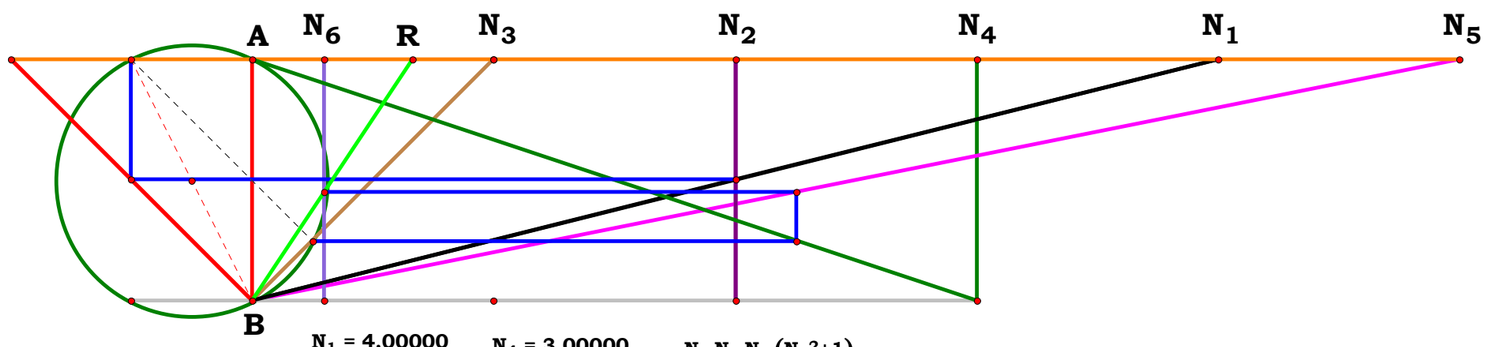
Unit. $AB := 1$ **Given.** $N_1 := 2.09922$ $N_2 := 1.64399$ $N_3 := .75763$

$N_4 := 1.17175$ $N_5 := 1.32134$ $N_6 := 2.44082$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $F := \frac{N_u}{N_6}$

$U := 18$ $V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

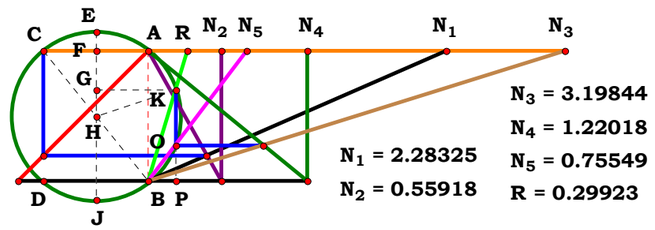
$k := \frac{U}{N_1}$ $l := \frac{V}{N_2}$ $m := \frac{W}{N_3}$ $n := \frac{X}{N_4}$ $o := \frac{Y}{N_5}$ $p := \frac{Z}{N_6}$



$N_1 = 4.00000$
$N_2 = 2.00523$
$N_3 = 1.00000$
$N_4 = 3.00000$
$N_5 = 5.00000$
$N_6 = 0.30000$
$R = 0.66609$

$$\frac{N_1 \cdot N_5 \cdot N_6 \cdot \left(N_3^2 + 1\right)}{N_3 \cdot N_4 \cdot \left(N_2 + N_1 \cdot N_3\right)} - R = 0.00000$$

4RST6AB3R0



Unit. $AB := 1$ Given. $N_1 := 2.28325$ $N_2 := .55918$ $N_3 := 3.19844$

$N_4 := 1.22018$ $N_5 := .75549$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$

$V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$l := \frac{V}{N_1}$ $m := \frac{W}{N_2}$ $n := \frac{X}{N_3}$ $o := \frac{Y}{N_4}$ $p := \frac{Z}{N_5}$

Descriptions.

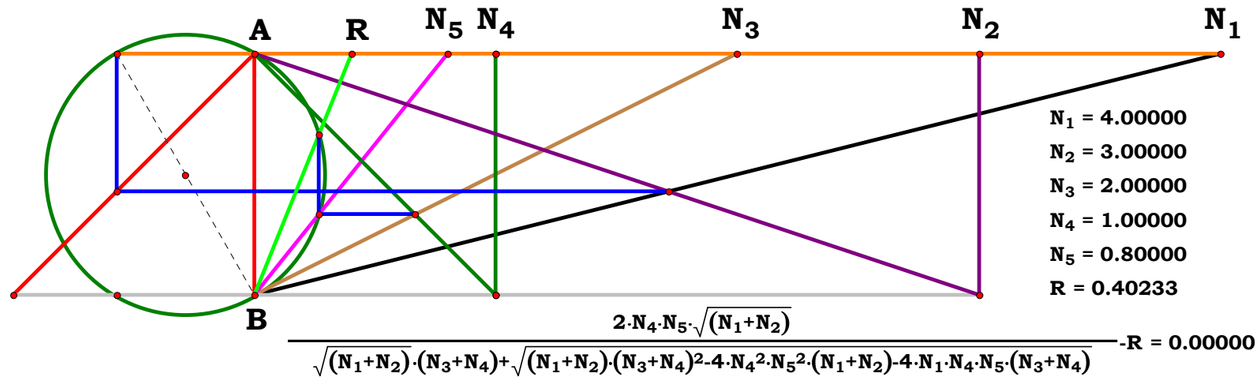
$AC := \frac{N_1}{N_1 + N_2}$ $EJ := \sqrt{AB^2 + AC^2}$ $EF := \frac{EJ - AB}{2}$

$AF := \frac{AC}{2}$ $OP := \frac{N_4}{N_3 + N_4}$ $BP := N_5 \cdot OP$

$GK := BP + AF$ $HK := \frac{EJ}{2}$

$GH := \sqrt{HK^2 - GK^2}$ $KO := \frac{AB}{2} + GH$

$R := \frac{BP}{KO}$ $R = 0.299227$



Definitions.

$$R - \frac{2 \cdot N_4 \cdot N_5 \cdot \sqrt{N_1 + N_2}}{\sqrt{N_1 + N_2} \cdot (N_3 + N_4) + \sqrt{(N_1 + N_2) \cdot (N_3 + N_4)^2 - 4 \cdot N_4^2 \cdot N_5^2 \cdot (N_1 + N_2) - 4 \cdot N_1 \cdot N_4 \cdot N_5 \cdot (N_3 + N_4)}} = 0$$

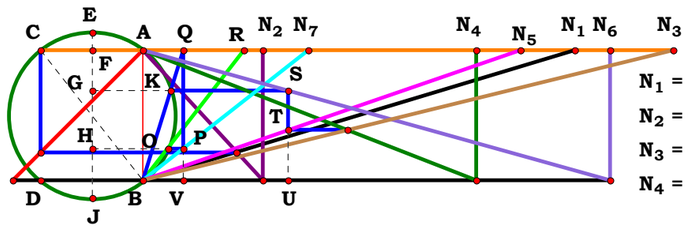
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$

$$R - \frac{2 \cdot C \cdot N_u \cdot \sqrt{N_u \cdot (A + B)} \cdot \sqrt{B} \cdot \sqrt{A}}{\sqrt{A \cdot B} \cdot \sqrt{N_u \cdot \left[E^2 \cdot (C + D)^2 \cdot (A + B) - \left[4 \cdot C \cdot N_u \cdot \left[B \cdot E \cdot (C + D) + C \cdot N_u \cdot (A + B)\right]\right]\right]} + \sqrt{\left[N_u \cdot (A + B)\right]} \cdot \sqrt{B} \cdot \sqrt{A} \cdot E \cdot (C + D)} = 0$$

$N_1 - \frac{V}{l} = 0$ $N_2 - \frac{W}{m} = 0$ $N_3 - \frac{X}{n} = 0$ $N_4 - \frac{Y}{o} = 0$ $N_5 - \frac{Z}{p} = 0$

$$R - \frac{2 \cdot Y \cdot Z \cdot n \cdot \sqrt{V \cdot m + W \cdot l}}{\sqrt{p^2 \cdot (X \cdot o + Y \cdot n)^2 \cdot (V \cdot m + W \cdot l) - 4 \cdot Z^2 \cdot Y^2 \cdot n^2 \cdot (V \cdot m + W \cdot l) - 4 \cdot Z \cdot V \cdot Y \cdot m \cdot n \cdot p \cdot (X \cdot o + Y \cdot n)} + \sqrt{V \cdot m + W \cdot l} \cdot p \cdot (X \cdot o + Y \cdot n)} = 0$$

4RST6AB3R1



N1 = 3.30995
N2 = 0.91756
N3 = 4.07016
N4 = 2.55682
N5 = 2.89605
N6 = 3.58480
N7 = 1.26704
R = 0.77383

Unit. $AB := 1$ Given. $N_1 := 3.330995$ $N_2 := .91756$ $N_3 := 4.07016$ $N_4 := 2.55682$ $N_5 := 2.89605$ $N_6 := 3.58480$ $N_7 := 1.26704$

Descriptions.

$$AC := \frac{N_1}{N_1 + N_2} \qquad EJ := \sqrt{AB^2 + AC^2}$$

$$AF := \frac{AC}{2} \qquad EF := \frac{EJ - AB}{2}$$

$$TU := \frac{N_4}{N_3 + N_4} \qquad BU := N_5 \cdot TU$$

$$SU := \frac{N_6 - BU}{N_6}$$

$$GJ := SU + EF$$

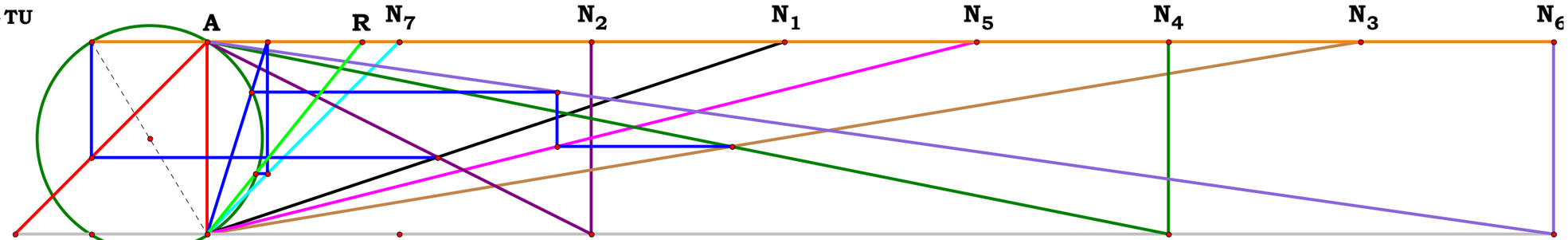
$$GK := \sqrt{GJ \cdot (EJ - GJ)}$$

$$AQ := \frac{GK - AF}{SU}$$

$$PV := \frac{AQ}{N_7} \qquad HJ := PV + EF$$

$$HO := \sqrt{HJ \cdot (EJ - HJ)} \qquad R := \frac{HO - AF}{PV}$$

$R = 0.77342$



$N_1 = 3.00000$
$N_2 = 2.00000$
$N_3 = 6.00000$
$N_4 = 5.00000$
$N_5 = 4.00000$
$N_6 = 7.00000$
$N_7 = 1.00000$
$R = 0.80688$

$\frac{N_1}{N_1+N_2} = 0.60000$
$\sqrt{1^2+AC^2} = 1.16619$
$\frac{AC}{2} = 0.30000$
$\frac{EJ-1}{2} = 0.08310$
$\frac{N_4}{N_3+N_4} = 0.45455$

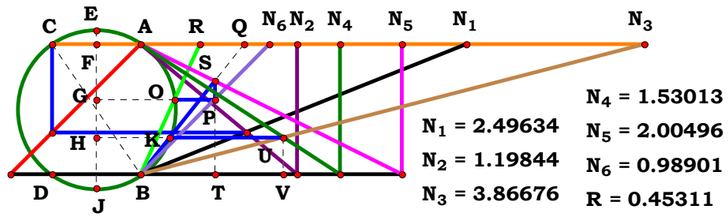
$N_5 \cdot TU = 1.81818$
$\frac{N_6-BU}{N_6} = 0.74026$
$SU+EF = 0.82335$
$\sqrt{GJ \cdot (EJ-GJ)} = 0.53130$
$\frac{GK-AF}{SU} = 0.31245$
$\frac{AQ}{N_7} = 0.31245$

$PV+EF = 0.39555$
$\sqrt{HJ \cdot (EJ-HJ)} = 0.55211$
$R-\frac{HO-AF}{PV} = 0.00000$

$AC = 0.60000$
$EJ = 1.16619$
$AF = 0.30000$
$EF = 0.08310$
$TU = 0.45455$
$BU = 1.81818$

$SU = 0.74026$
$GJ = 0.82335$
$GK = 0.53130$
$AQ = 0.31245$
$PV = 0.31245$
$HJ = 0.39555$
$HO = 0.55211$

4RST6AB3R2



$N_1 = 2.49634$
$N_2 = 1.19844$
$N_3 = 3.86676$
$N_4 = 1.53013$
$N_5 = 2.00496$
$N_6 = 0.98901$
$R = 0.45311$

Unit. $AB := 1$ **Given.** $N_1 := 2.49634$ $N_2 := 1.19844$ $N_3 := 3.86676$
$N_4 := 1.53013$ $N_5 := 2.00496$ $N_6 := .98901$

Descriptions.

$$AC := \frac{N_1}{N_1 + N_2} \qquad EJ := \sqrt{AB^2 + AC^2}$$

$$AF := \frac{AC}{2} \qquad EF := \frac{EJ - AB}{2}$$

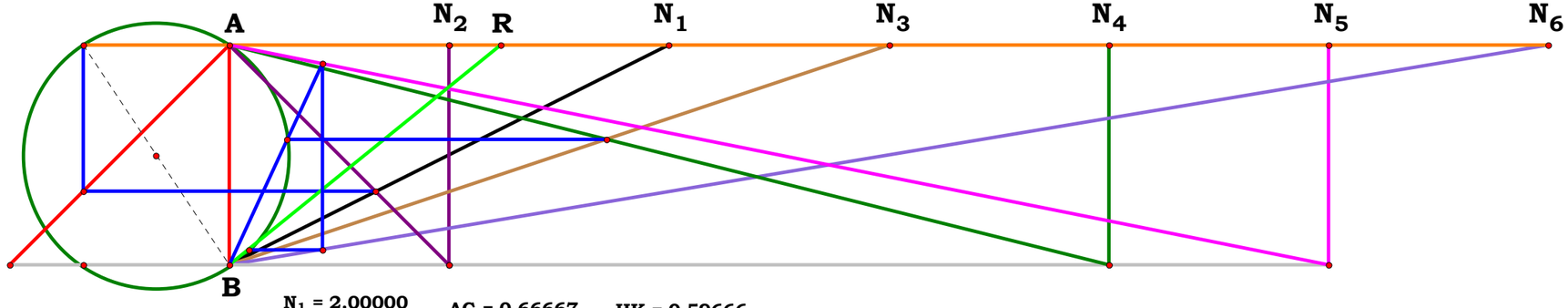
$$UV := \frac{N_4}{N_3 + N_4} \qquad HJ := UV + EF$$

$$HK := \sqrt{HJ \cdot (EJ - HJ)} \qquad AQ := \frac{HK - AF}{UV}$$

$$BT := \frac{AQ \cdot N_5}{AQ + N_5} \qquad PT := \frac{BT}{N_6}$$

$$GJ := PT + EF \qquad GO := \sqrt{GJ \cdot (EJ - GJ)}$$

$$R := \frac{GO - AF}{PT} \qquad R = 0.453111$$



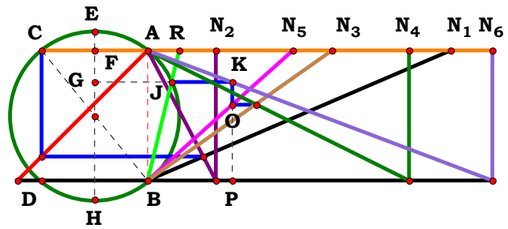
$N_1 = 2.00000$
$N_2 = 1.00000$
$N_3 = 3.00000$
$N_4 = 4.00000$
$N_5 = 5.00000$
$N_6 = 6.00000$
$R = 1.23391$

$AC = 0.66667$
$EJ = 1.20185$
$AF = 0.33333$
$EF = 0.10093$
$UV = 0.57143$
$HJ = 0.67235$

$HK = 0.59666$
$AQ = 0.46083$
$BT = 0.42194$
$PT = 0.07032$
$GJ = 0.17125$
$GO = 0.42011$

$R\text{-}\frac{GO\text{-}AF}{PT} = 0.00000$

4RST6AB3R3



$N_1 = 2.32200$
$N_2 = 0.52044$
$N_3 = 1.41626$
$N_4 = 2.00473$
$N_5 = 1.11387$
$N_6 = 2.64528$
$R = 0.24618$

Unit. $AB := 1$ **Given.** $N_1 := 2.32200$ $N_2 := .52044$ $N_3 := 1.41626$

$N_4 := 2.00473$ $N_5 := 1.11387$ $N_6 := 2.64528$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $F := \frac{N_u}{N_6}$

$U := 18$ $V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$k := \frac{U}{N_1}$ $l := \frac{V}{N_2}$ $m := \frac{W}{N_3}$ $n := \frac{X}{N_4}$ $o := \frac{Y}{N_5}$ $p := \frac{Z}{N_6}$

Descriptions.

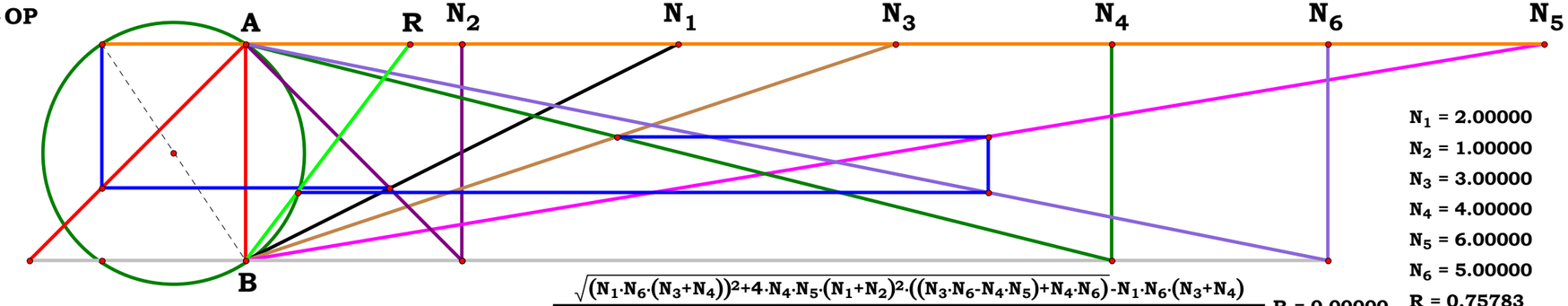
$AC := \frac{N_1}{N_1 + N_2}$ $EH := \sqrt{AB^2 + AC^2}$ $EF := \frac{EH - AB}{2}$

$AF := \frac{AC}{2}$ $OP := \frac{N_4}{N_3 + N_4}$ $BP := N_5 \cdot OP$

$KP := AB - \frac{BP}{N_6}$ $GH := KP + EF$

$GJ := \sqrt{GH \cdot (EH - GH)}$

$R := \frac{GJ - AF}{KP}$ $R = 0.24618$



$N_1 = 2.00000$
$N_2 = 1.00000$
$N_3 = 3.00000$
$N_4 = 4.00000$
$N_5 = 6.00000$
$N_6 = 5.00000$
$R = 0.75783$

$$\frac{\sqrt{(N_1 \cdot N_6 \cdot (N_3 + N_4))^2 + 4 \cdot N_4 \cdot N_5 \cdot (N_1 + N_2)^2 \cdot ((N_3 \cdot N_6 - N_4 \cdot N_5) + N_4 \cdot N_6)} - N_1 \cdot N_6 \cdot (N_3 + N_4)}{2 \cdot (N_1 + N_2) \cdot ((N_3 \cdot N_6 - N_4 \cdot N_5) + N_4 \cdot N_6)} - R = 0.00000$$

Definitions.

$$R - \frac{\sqrt{N_1^2 \cdot N_6^2 \cdot (N_3 + N_4)^2 + 4 \cdot N_4 \cdot N_5 \cdot (N_1 + N_2)^2 \cdot (N_3 \cdot N_6 - N_4 \cdot N_5 + N_4 \cdot N_6)} - N_1 \cdot N_6 \cdot (N_3 + N_4)}{2 \cdot (N_1 + N_2) \cdot (N_3 \cdot N_6 - N_4 \cdot N_5 + N_4 \cdot N_6)} = 0$$

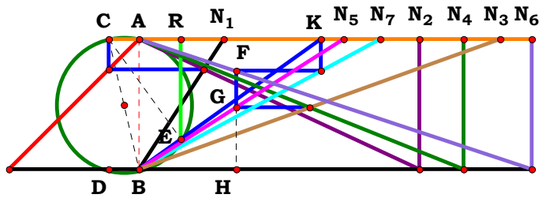
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$ $N_6 - \frac{N_u}{F} = 0$

$$R - \frac{\sqrt{4 \cdot C \cdot F \cdot (A + B)^2 \cdot [C \cdot (E - F) + D \cdot E] + B^2 \cdot E^2 \cdot (C + D)^2} - B \cdot E \cdot (C + D)}{2 \cdot (A + B) \cdot (C \cdot E - C \cdot F + D \cdot E)} = 0$$

$N_1 - \frac{U}{k} = 0$ $N_2 - \frac{V}{l} = 0$ $N_3 - \frac{W}{m} = 0$ $N_4 - \frac{X}{n} = 0$ $N_5 - \frac{Y}{o} = 0$ $N_6 - \frac{Z}{p} = 0$

$$R - \frac{\sqrt{4 \cdot X \cdot Y \cdot m \cdot p \cdot (U \cdot l + V \cdot k)^2 \cdot (W \cdot Z \cdot n \cdot o - X \cdot Y \cdot m \cdot p + X \cdot Z \cdot m \cdot o) + U^2 \cdot Z^2 \cdot l^2 \cdot o^2 \cdot (W \cdot n + X \cdot m)^2} - U \cdot Z \cdot l \cdot o \cdot (W \cdot n + X \cdot m)}{2 \cdot (U \cdot l + V \cdot k) \cdot (W \cdot Z \cdot n \cdot o - X \cdot Y \cdot m \cdot p + X \cdot Z \cdot m \cdot o)} = 0$$

4RST6AB3R4



$N_1 = 0.64635$ $N_4 = 2.48902$ $N_7 = 1.84818$
$N_2 = 2.14765$ $N_5 = 1.56910$ $R = 0.32109$
$N_3 = 2.77227$ $N_6 = 3.01334$

Unit. $AB := 1$ Given. $N_1 := .64635$ $N_2 := 2.14765$ $N_3 := 2.77227$ $N_4 := 2.48902$

$N_5 := 1.56910$ $N_6 := 3.01334$ $N_7 := 1.84818$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $F := \frac{N_u}{N_6}$ $G := \frac{N_u}{N_7}$

$T := 19$ $U := 18$ $V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$j := \frac{T}{N_1}$ $k := \frac{U}{N_2}$ $l := \frac{V}{N_3}$ $m := \frac{W}{N_4}$ $n := \frac{X}{N_5}$ $o := \frac{Y}{N_6}$ $p := \frac{Z}{N_7}$

Descriptions.

$AC := \frac{N_1}{N_1 + N_2}$ $GH := \frac{N_4}{N_3 + N_4}$

$BH := N_5 \cdot GH$ $FH := \frac{N_6 - BH}{N_6}$ $AK := N_7 \cdot FH$

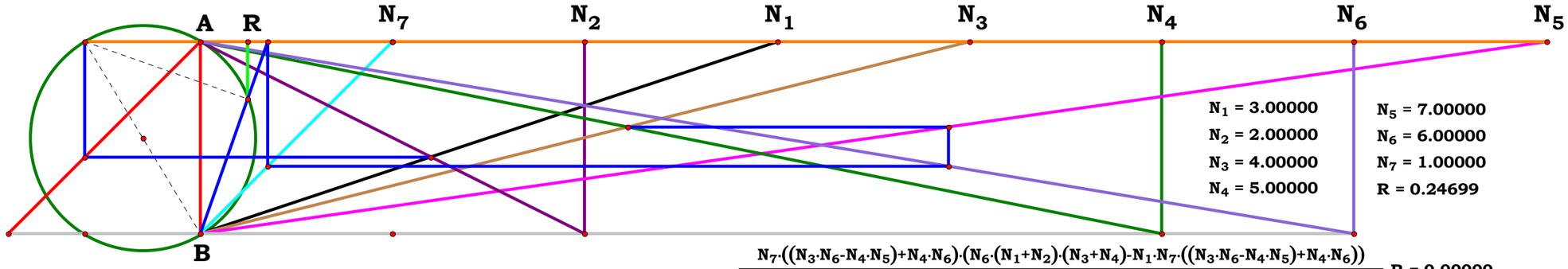
$BK := \sqrt{AK^2 + AB^2}$

$CK := AK + AC$

$EK := \frac{AK \cdot CK}{BK}$

$R := AK \cdot \frac{(BK - EK)}{BK}$

$R = 0.321095$



$N_1 = 3.00000$ $N_5 = 7.00000$
$N_2 = 2.00000$ $N_6 = 6.00000$
$N_3 = 4.00000$ $N_7 = 1.00000$
$N_4 = 5.00000$ $R = 0.24699$

$N_7 \cdot ((N_3 \cdot N_6 - N_4 \cdot N_5) + N_4 \cdot N_6) \cdot (N_6 \cdot (N_1 + N_2) \cdot (N_3 + N_4) - N_1 \cdot N_7 \cdot ((N_3 \cdot N_6 - N_4 \cdot N_5) + N_4 \cdot N_6))$

$\frac{N_7 \cdot ((N_3 \cdot N_6 - N_4 \cdot N_5) + N_4 \cdot N_6) \cdot (N_6 \cdot (N_1 + N_2) \cdot (N_3 + N_4) - N_1 \cdot N_7 \cdot ((N_3 \cdot N_6 - N_4 \cdot N_5) + N_4 \cdot N_6))}{(N_1 + N_2) \cdot (N_6^2 \cdot (N_3 + N_4)^2 + N_7^2 \cdot ((N_3 \cdot N_6 - N_4 \cdot N_5) + N_4 \cdot N_6)^2)} - R = 0.00000$

Definitions.

$$R - \frac{N_7 \cdot (N_3 \cdot N_6 - N_4 \cdot N_5 + N_4 \cdot N_6) \cdot [N_6 \cdot (N_3 + N_4) \cdot (N_1 + N_2) - N_1 \cdot N_7 \cdot (N_3 \cdot N_6 - N_4 \cdot N_5 + N_4 \cdot N_6)]}{(N_1 + N_2) \cdot [N_6^2 \cdot (N_3 + N_4)^2 + N_7^2 \cdot (N_3 \cdot N_6 - N_4 \cdot N_5 + N_4 \cdot N_6)^2]} = 0$$

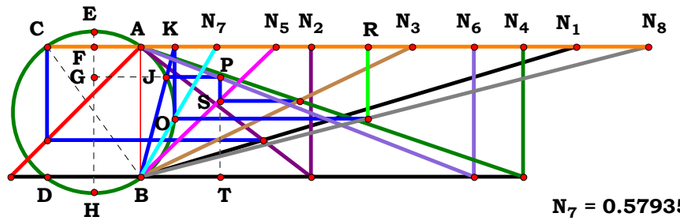
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$ $N_6 - \frac{N_u}{F} = 0$ $N_7 - \frac{N_u}{G} = 0$

$$R - \frac{N_u \cdot [C \cdot (E - F) + D \cdot E] \cdot [G \cdot E \cdot (C + D) \cdot (A + B) - B \cdot N_u \cdot [C \cdot (E - F) + D \cdot E]]}{(A + B) \cdot [G^2 \cdot E^2 \cdot (C + D)^2 + N_u^2 \cdot (C \cdot E - C \cdot F + D \cdot E)^2]} = 0$$

$N_1 - \frac{T}{j} = 0$ $N_2 - \frac{U}{k} = 0$ $N_3 - \frac{V}{l} = 0$ $N_4 - \frac{W}{m} = 0$ $N_5 - \frac{X}{n} = 0$ $N_6 - \frac{Y}{o} = 0$ $N_7 - \frac{Z}{p} = 0$

$$R - \frac{Z \cdot (V \cdot Y \cdot m \cdot n - W \cdot X \cdot l \cdot o + W \cdot Y \cdot l \cdot n) \cdot [T \cdot W \cdot X \cdot Z \cdot k \cdot l \cdot o - Y \cdot n \cdot (V \cdot m + W \cdot l) \cdot (T \cdot Z \cdot k - T \cdot k \cdot p - U \cdot j \cdot p)]}{(T \cdot k + U \cdot j) \cdot [Z^2 \cdot (V \cdot Y \cdot m \cdot n - W \cdot X \cdot l \cdot o + W \cdot Y \cdot l \cdot n)^2 + Y^2 \cdot n^2 \cdot p^2 \cdot (V \cdot m + W \cdot l)^2]} = 0$$

4RST6AB3R5



$N_1 = 3.33900$ $N_3 = 2.08458$ $N_5 = 1.03638$ $N_7 = 0.57935$ $N_8 = 3.89782$

$N_2 = 1.30499$ $N_4 = 2.93456$ $N_6 = 2.55810$ $R = 1.73929$

Unit. $AB := 1$ **Given.** $N_1 := 3.33900$ $N_2 := 1.30499$ $N_3 := 2.08458$ $N_4 := 2.93456$

$N_5 := 1.03638$ $N_6 := 2.55810$ $N_7 := .57935$ $N_8 := 3.89782$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $F := \frac{N_u}{N_6}$ $G := \frac{N_u}{N_7}$ $H := \frac{N_u}{N_8}$

$S := 20$ $T := 19$ $U := 18$ $V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$h := \frac{S}{N_1}$ $j := \frac{T}{N_2}$ $k := \frac{Y}{N_3}$ $l := \frac{V}{N_4}$ $m := \frac{W}{N_5}$ $n := \frac{X}{N_6}$ $o := \frac{Y}{N_7}$ $p := \frac{Z}{N_8}$

Descriptions.

$AC := \frac{N_1}{N_1 + N_2}$ $EH := \sqrt{AB^2 + AC^2}$ $AF := \frac{AC}{2}$ $EF := \frac{EH - AB}{2}$ $ST := \frac{N_4}{N_3 + N_4}$ $BT := N_5 \cdot ST$

$PT := \frac{N_6 - BT}{N_6}$ $GH := PT + EF$

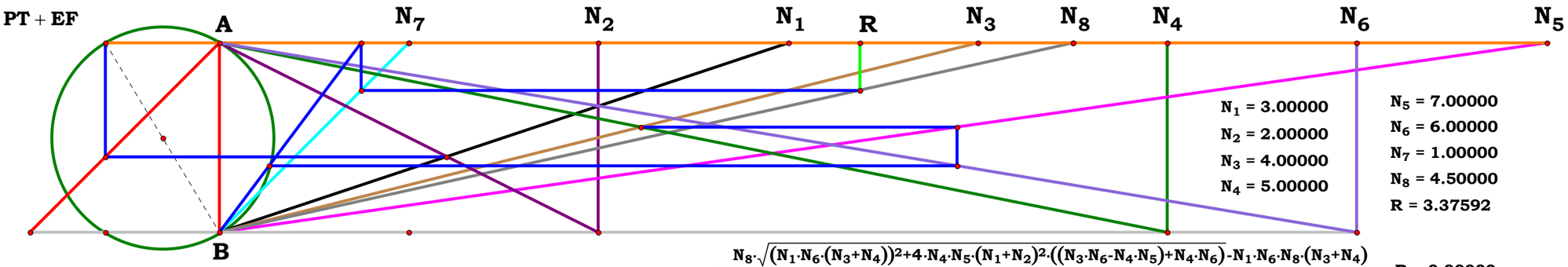
$GJ := \sqrt{GH \cdot (EH - GH)}$

$AK := \frac{(GJ - AF)}{PT}$

$KO := \frac{N_7 - AK}{N_7}$

$R := N_8 \cdot (AB - KO)$

$R = 1.739282$



$N_1 = 3.00000$ $N_5 = 7.00000$

$N_2 = 2.00000$ $N_6 = 6.00000$

$N_3 = 4.00000$ $N_7 = 1.00000$

$N_4 = 5.00000$ $N_8 = 4.50000$

$R = 3.37592$

$$\frac{N_8 \cdot \sqrt{(N_1 \cdot N_6 \cdot (N_3 + N_4))^2 + 4 \cdot N_4 \cdot N_5 \cdot (N_1 + N_2)^2 \cdot ((N_3 \cdot N_6 - N_4 \cdot N_5) + N_4 \cdot N_6)} - N_1 \cdot N_6 \cdot N_8 \cdot (N_3 + N_4)}{2 \cdot N_7 \cdot (N_1 + N_2) \cdot ((N_3 \cdot N_6 - N_4 \cdot N_5) + N_4 \cdot N_6)} - R = 0.00000$$

Definitions.

$$R - \frac{N_8 \cdot \left[\sqrt{N_1^2 \cdot N_6^2 \cdot (N_3 + N_4)^2 + 4 \cdot N_4 \cdot N_5 \cdot (N_1 + N_2)^2 \cdot (N_3 \cdot N_6 - N_4 \cdot N_5 + N_4 \cdot N_6)} - N_1 \cdot N_6 \cdot (N_3 + N_4)\right]}{2 \cdot (N_1 + N_2) \cdot N_7 \cdot (N_3 \cdot N_6 - N_4 \cdot N_5 + N_4 \cdot N_6)} = 0$$

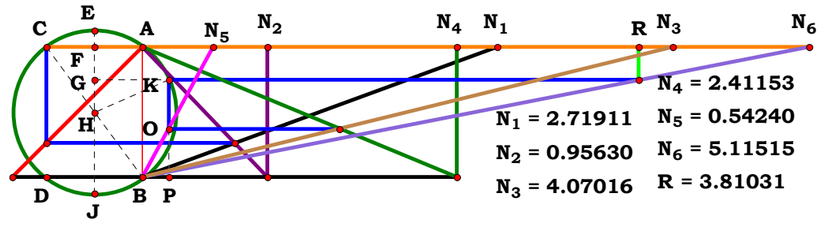
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$ $N_6 - \frac{N_u}{F} = 0$ $N_7 - \frac{N_u}{G} = 0$ $N_8 - \frac{N_u}{H} = 0$

$$R - -\frac{G \cdot \left[B \cdot C \cdot E - \sqrt{B^2 \cdot E^2 \cdot (C + D)^2 + 4 \cdot C \cdot F \cdot (A + B)^2 \cdot (C \cdot E - C \cdot F + D \cdot E)} + B \cdot D \cdot E\right]}{2 \cdot H \cdot (A + B) \cdot [C \cdot (E - F) + D \cdot E]} = 0$$

$N_1 - \frac{S}{h} = 0$ $N_2 - \frac{T}{j} = 0$ $N_3 - \frac{U}{k} = 0$ $N_4 - \frac{V}{l} = 0$ $N_5 - \frac{W}{m} = 0$ $N_6 - \frac{X}{n} = 0$ $N_7 - \frac{Y}{o} = 0$ $N_8 - \frac{Z}{p} = 0$

$$R - \frac{Z \cdot o \cdot \left[\sqrt{4 \cdot V \cdot W \cdot k \cdot n \cdot (T \cdot h + S \cdot j)^2 \cdot (U \cdot X \cdot l \cdot m - V \cdot W \cdot k \cdot n + V \cdot X \cdot k \cdot m) + S^2 \cdot X^2 \cdot j^2 \cdot m^2 \cdot (U \cdot l + V \cdot k)^2} - S \cdot X \cdot j \cdot m \cdot (U \cdot l + V \cdot k)\right]}{2 \cdot Y \cdot p \cdot (T \cdot h + S \cdot j) \cdot (U \cdot X \cdot l \cdot m - V \cdot W \cdot k \cdot n + V \cdot X \cdot k \cdot m)} = 0$$

4RST6AB3R6



Unit. $AB := 1$ Given. $N_1 := 2.71911$ $N_2 := .95630$ $N_3 := 4.07016$

$N_4 := 2.41153$ $N_5 := .54240$ $N_6 := 5.11515$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $F := \frac{N_u}{N_6}$

$U := 18$ $V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$k := \frac{U}{N_1}$ $l := \frac{V}{N_2}$ $m := \frac{W}{N_3}$ $n := \frac{X}{N_4}$ $o := \frac{Y}{N_5}$ $p := \frac{Z}{N_6}$

Descriptions.

$AC := \frac{N_1}{N_1 + N_2}$ $EJ := \sqrt{AB^2 + AC^2}$ $AF := \frac{AC}{2}$

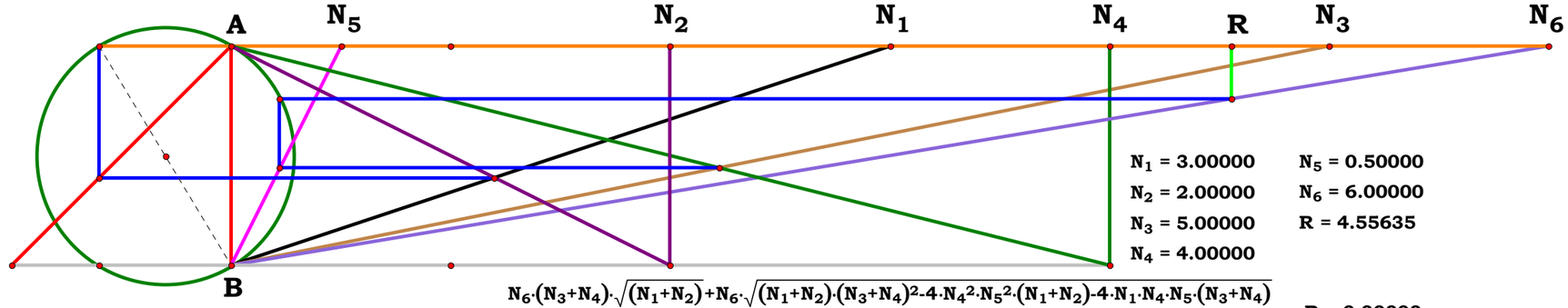
$EF := \frac{EJ - AB}{2}$ $HK := \frac{EJ}{2}$ $OP := \frac{N_4}{N_3 + N_4}$

$BP := N_5 \cdot OP$ $GK := AF + BP$

$GH := \sqrt{HK^2 - GK^2}$ $KP := GH + HK - EF$

$R := N_6 \cdot KP$ $R = 3.81033$

Definitions.



$$\frac{N_6\cdot(N_3+N_4)\cdot\sqrt{(N_1+N_2)}+N_6\cdot\sqrt{(N_1+N_2)\cdot(N_3+N_4)^2-4\cdot N_4^2\cdot N_5^2\cdot(N_1+N_2)-4\cdot N_1\cdot N_4\cdot N_5\cdot(N_3+N_4)}}{2\cdot(N_3+N_4)\cdot\sqrt{(N_1+N_2)}} - R = 0.00000$$

$$R - \frac{N_6\cdot\left[\sqrt{N_1+N_2}\cdot(N_3+N_4)+\sqrt{(N_1+N_2)\cdot(N_3+N_4)^2-4\cdot N_4^2\cdot N_5^2\cdot(N_1+N_2)-4\cdot N_1\cdot N_4\cdot N_5\cdot(N_3+N_4)}\right]}{2\cdot(N_3+N_4)\cdot\sqrt{N_1+N_2}} = 0$$

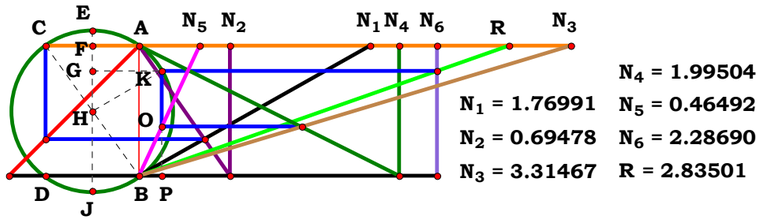
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$ $N_6 - \frac{N_u}{F} = 0$

$$R - \frac{N_u\cdot\left[\sqrt{A\cdot B}\cdot\sqrt{N_u\cdot\left[E^2\cdot(A+B)\cdot(C+D)^2-4\cdot C\cdot N_u\cdot\left[B\cdot E\cdot(C+D)+C\cdot N_u\cdot(A+B)\right]\right]}+\sqrt{\left[N_u\cdot(A+B)\right]}\cdot\sqrt{B}\cdot\sqrt{A}\cdot E\cdot(C+D)\right]}{2\cdot F\cdot(C+D)\cdot\sqrt{\left[N_u\cdot(A+B)\right]}\cdot\sqrt{B}\cdot\sqrt{A}\cdot E} = 0$$

$N_1 - \frac{U}{k} = 0$ $N_2 - \frac{V}{l} = 0$ $N_3 - \frac{W}{m} = 0$ $N_4 - \frac{X}{n} = 0$ $N_5 - \frac{Y}{o} = 0$ $N_6 - \frac{Z}{p} = 0$

$$R - \frac{Z\cdot\left[\sqrt{o^2\cdot(W\cdot n+X\cdot m)^2\cdot(U\cdot l+V\cdot k)-4\cdot Y^2\cdot X^2\cdot m^2\cdot(U\cdot l+V\cdot k)-4\cdot Y\cdot U\cdot X\cdot l\cdot m\cdot o\cdot(W\cdot n+X\cdot m)}+\sqrt{U\cdot l+V\cdot k}\cdot o\cdot(W\cdot n+X\cdot m)\right]}{2\cdot\sqrt{U\cdot l+V\cdot k}\cdot p\cdot(W\cdot n+X\cdot m)\cdot o} = 0$$

4RST6AB3R7



$N_4 = 1.99504$
$N_1 = 1.76991$ $N_5 = 0.46492$
$N_2 = 0.69478$ $N_6 = 2.28690$
$N_3 = 3.31467$ $R = 2.83501$

Unit. $AB := 1$ **Given.** $N_1 := 1.76991$ $N_2 := .69478$ $N_3 := 3.31467$

$N_4 := 1.99504$ $N_5 := .46492$ $N_6 := 2.28690$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $F := \frac{N_u}{N_6}$

$U := 18$ $V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$k := \frac{U}{N_1}$ $l := \frac{V}{N_2}$ $m := \frac{W}{N_3}$ $n := \frac{X}{N_4}$ $o := \frac{Y}{N_5}$ $p := \frac{Z}{N_6}$

Descriptions.

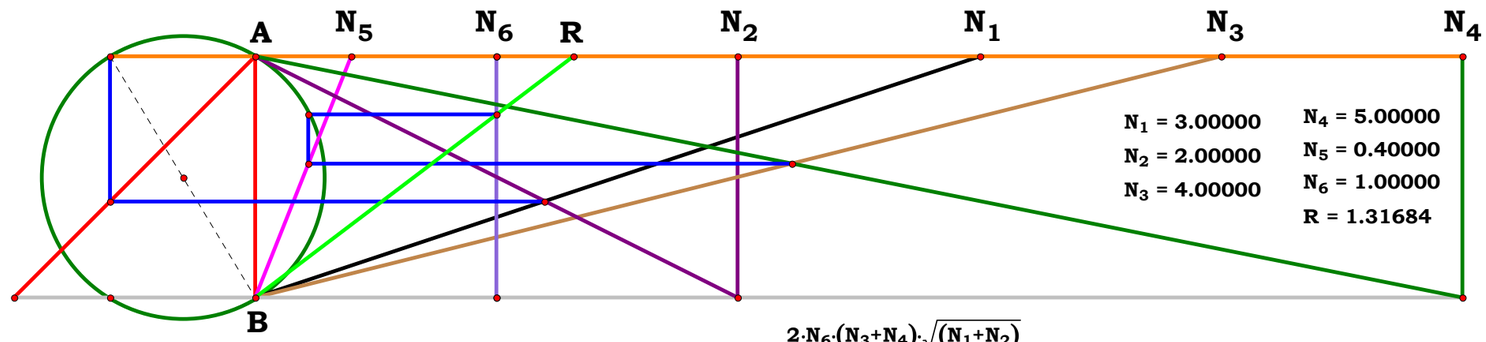
$AC := \frac{N_1}{N_1 + N_2}$ $EJ := \sqrt{AB^2 + AC^2}$ $AF := \frac{AC}{2}$

$EF := \frac{EJ - AB}{2}$ $HK := \frac{EJ}{2}$ $OP := \frac{N_4}{N_3 + N_4}$

$BP := N_5 \cdot OP$ $GK := AF + BP$

$GH := \sqrt{HK^2 - GK^2}$ $KP := GH + HK - EF$

$R := \frac{N_6}{KP}$ $R = 2.835018$



$N_1 = 3.00000$ $N_4 = 5.00000$
$N_2 = 2.00000$ $N_5 = 0.40000$
$N_3 = 4.00000$ $N_6 = 1.00000$
$R = 1.31684$

$$\frac{2 \cdot N_6 \cdot (N_3+N_4) \cdot \sqrt{(N_1+N_2)}}{(N_3+N_4) \cdot \sqrt{(N_1+N_2)} + \sqrt{(N_1+N_2) \cdot (N_3+N_4)^2 - 4 \cdot N_4^2 \cdot N_5^2 \cdot (N_1+N_2) - 4 \cdot N_1 \cdot N_4 \cdot N_5 \cdot (N_3+N_4)}} - R = 0.00000$$

Definitions.

$$R - \frac{2 \cdot N_6 \cdot \sqrt{N_1 + N_2} \cdot (N_3 + N_4)}{\sqrt{N_1 + N_2} \cdot (N_3 + N_4) + \sqrt{(N_1 + N_2) \cdot (N_3 + N_4)^2 - 4 \cdot N_4^2 \cdot N_5^2 \cdot (N_1 + N_2) - 4 \cdot N_1 \cdot N_4 \cdot N_5 \cdot (N_3 + N_4)}} = 0$$

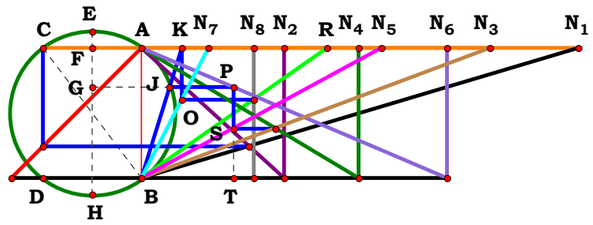
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$ $N_6 - \frac{N_u}{F} = 0$

$$R - \frac{2 \cdot N_u \cdot \sqrt{N_u \cdot (A+B)} \cdot (C+D) \cdot \sqrt{B} \cdot \sqrt{A} \cdot E}{F \cdot \left[\sqrt{A \cdot B} \cdot \sqrt{-N_u \cdot \left[4 \cdot C^2 \cdot N_u^2 \cdot (A+B) - E^2 \cdot (A+B) \cdot (C+D)^2 + 4 \cdot B \cdot C \cdot E \cdot N_u \cdot (C+D) \right]} + \sqrt{\left[N_u \cdot (A+B) \right]} \cdot \sqrt{B} \cdot \sqrt{A} \cdot E \cdot (C+D) \right]} = 0$$

$N_1 - \frac{U}{k} = 0$ $N_2 - \frac{V}{l} = 0$ $N_3 - \frac{W}{m} = 0$ $N_4 - \frac{X}{n} = 0$ $N_5 - \frac{Y}{o} = 0$ $N_6 - \frac{Z}{p} = 0$

$$R - \frac{2 \cdot Z \cdot \sqrt{U \cdot l + V \cdot k} \cdot (W \cdot n + X \cdot m) \cdot o}{p \cdot \left[\sqrt{o^2 \cdot (W \cdot n + X \cdot m)^2 \cdot (U \cdot l + V \cdot k) - 4 \cdot Y \cdot U \cdot X \cdot l \cdot m \cdot o \cdot (W \cdot n + X \cdot m) - 4 \cdot Y^2 \cdot X^2 \cdot m^2 \cdot (U \cdot l + V \cdot k)} + \sqrt{U \cdot l + V \cdot k} \cdot o \cdot (W \cdot n + X \cdot m) \right]} = 0$$

4RST6AB3R8



$N_1 = 3.34869$ $N_4 = 1.66573$ $N_7 = 0.51155$
$N_2 = 1.09190$ $N_5 = 1.84030$ $N_8 = 0.86336$
$N_3 = 2.67541$ $N_6 = 2.34502$ $R = 1.42396$

Unit. $AB := 1$ Given. $N_1 := 3.34869$ $N_2 := 1.09190$ $N_3 := 2.67541$ $N_4 := 1.66573$
$N_5 := 1.84030$ $N_6 := 2.34502$ $N_7 := .51155$ $N_8 := .86336$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $F := \frac{N_u}{N_6}$ $G := \frac{N_u}{N_7}$ $H := \frac{N_u}{N_8}$

$S := 20$ $T := 19$ $U := 18$ $V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$h := \frac{S}{N_1}$ $j := \frac{T}{N_2}$ $k := \frac{Y}{N_3}$ $l := \frac{V}{N_4}$ $m := \frac{W}{N_5}$ $n := \frac{X}{N_6}$ $o := \frac{Y}{N_7}$ $p := \frac{Z}{N_8}$

Descriptions.

$AC := \frac{N_1}{N_1 + N_2}$ $EH := \sqrt{AB^2 + AC^2}$

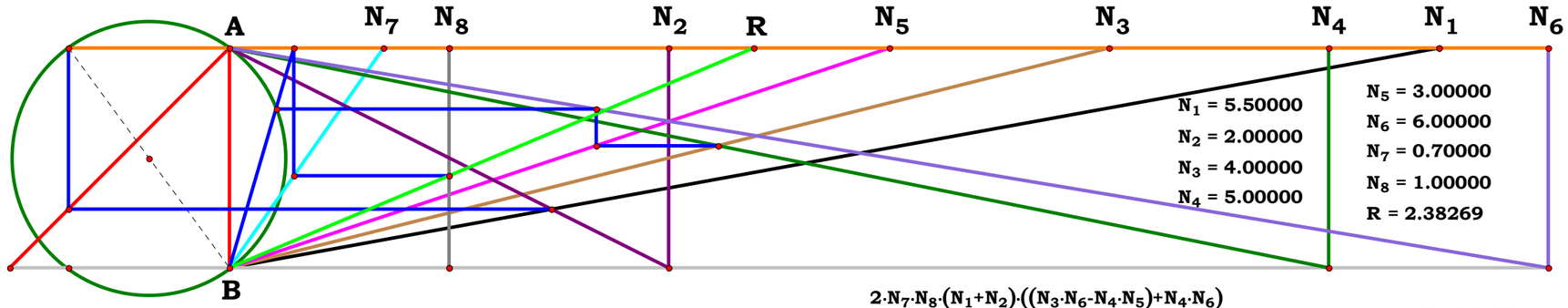
$AF := \frac{AC}{2}$ $EF := \frac{EH - AB}{2}$ $ST := \frac{N_4}{N_3 + N_4}$

$BT := N_5 \cdot ST$ $PT := \frac{N_6 - BT}{N_6}$

$GH := PT + EF$ $GJ := \sqrt{GH \cdot (EH - GH)}$

$AK := \frac{GJ - AF}{PT}$ $KO := \frac{N_7 - AK}{N_7}$

$R := \frac{N_8}{AB - KO}$ $R = 1.423963$



$$\frac{2 \cdot N_7 \cdot N_8 \cdot (N_1+N_2) \cdot ((N_3 \cdot N_6 - N_4 \cdot N_5) + N_4 \cdot N_6)}{\sqrt{(N_1 \cdot N_6 \cdot (N_3+N_4))^2 + 4 \cdot N_4 \cdot N_5 \cdot (N_1+N_2)^2 \cdot ((N_3 \cdot N_6 - N_4 \cdot N_5) + N_4 \cdot N_6)} - N_1 \cdot N_6 \cdot (N_3+N_4)} - R = 0.00000$$

Definitions.

$$R - \frac{2 \cdot N_7 \cdot N_8 \cdot (N_1 + N_2) \cdot (N_3 \cdot N_6 - N_4 \cdot N_5 + N_4 \cdot N_6)}{\sqrt{N_1^2 \cdot N_6^2 \cdot (N_3 + N_4)^2 + 4 \cdot N_4 \cdot N_5 \cdot (N_1 + N_2)^2 \cdot (N_3 \cdot N_6 - N_4 \cdot N_5 + N_4 \cdot N_6)} - N_1 \cdot N_6 \cdot (N_3 + N_4)} = 0$$

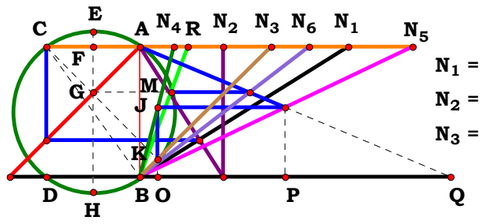
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$ $N_6 - \frac{N_u}{F} = 0$ $N_7 - \frac{N_u}{G} = 0$ $N_8 - \frac{N_u}{H} = 0$

$$R - \frac{2 \cdot N_u^2 \cdot (A + B) \cdot [C \cdot (F - E) - D \cdot E]}{G \cdot H \cdot \left[B \cdot E \cdot (C + D) - \sqrt{B^2 \cdot E^2 \cdot (C + D)^2 + 4 \cdot C \cdot F \cdot (A + B)^2 \cdot [C \cdot (E - F) + D \cdot E]}\right]} = 0$$

$N_1 - \frac{S}{h} = 0$ $N_2 - \frac{T}{j} = 0$ $N_3 - \frac{U}{k} = 0$ $N_4 - \frac{V}{l} = 0$ $N_5 - \frac{W}{m} = 0$ $N_6 - \frac{X}{n} = 0$ $N_7 - \frac{Y}{o} = 0$ $N_8 - \frac{Z}{p} = 0$

$$R - \frac{2 \cdot Y \cdot Z \cdot (T \cdot h + S \cdot j) \cdot (U \cdot X \cdot l \cdot m - V \cdot W \cdot k \cdot n + V \cdot X \cdot k \cdot m)}{o \cdot p \cdot \left[\sqrt{X^2 \cdot S^2 \cdot j^2 \cdot m^2 \cdot (U \cdot l + V \cdot k)^2 + 4 \cdot V \cdot W \cdot k \cdot n \cdot (T \cdot h + S \cdot j)^2 \cdot (U \cdot X \cdot l \cdot m - V \cdot W \cdot k \cdot n + V \cdot X \cdot k \cdot m)} - S \cdot X \cdot j \cdot m \cdot (U \cdot l + V \cdot k)\right]} = 0$$

4RST6AB2R9



$N_1 = 1.59556$ $N_4 = 0.26129$
$N_2 = 0.63667$ $N_5 = 2.09213$
$N_3 = 1.00946$ $N_6 = 1.29895$
$R = 0.36947$

Unit. $AB := 1$ **Given.** $N_1 := 1.59556$ $N_2 := .63667$ $N_3 := 1.00946$ $N_4 := .26129$ $N_5 := 2.09213$ $N_6 := 1.29895$

Descriptions.

$$AC := \frac{N_1}{N_1 + N_2} \qquad EH := \sqrt{AB^2 + AC^2}$$

$$AF := \frac{AC}{2} \qquad EF := \frac{EH - AB}{2}$$

$$BN_3 := \sqrt{N_3^2 + AB^2} \qquad CN_3 := N_3 + AC$$

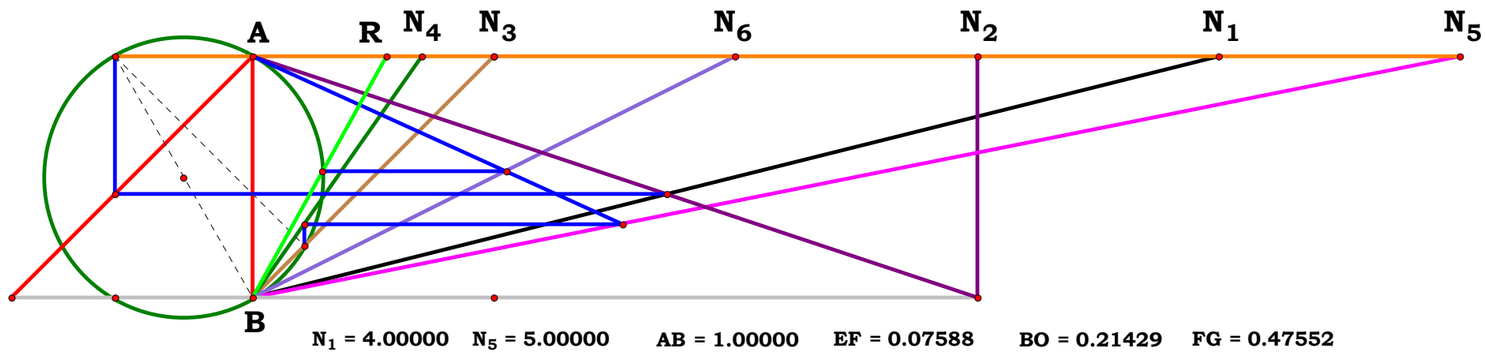
$$KN_3 := \frac{N_3 \cdot CN_3}{BN_3} \qquad BO := \frac{N_3 \cdot (BN_3 - KN_3)}{BN_3}$$

$$JO := \frac{BO}{N_4} \qquad BP := N_5 \cdot JO$$

$$BQ := \frac{BP \cdot AB}{AB - JO} \qquad FG := \frac{N_6}{BQ + N_6}$$

$$EG := FG + EF \qquad GM := \sqrt{EG \cdot (EH - EG)}$$

$$R := \frac{GM - AF}{AB - FG} \qquad R = 0.369478$$

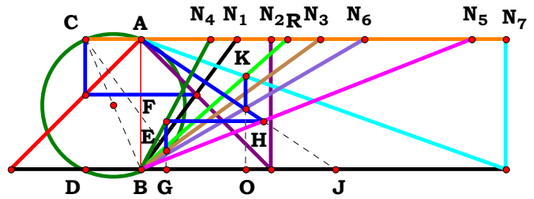


$N_1 = 4.00000$ $N_5 = 5.00000$ $AB = 1.00000$ $EF = 0.07588$ $BO = 0.21429$ $FG = 0.47552$
$N_2 = 3.00000$ $N_6 = 2.00000$ $AC = 0.57143$ $BN_3 = 1.41421$ $JO = 0.30612$ $EG = 0.55140$
$N_3 = 1.00000$ $R = 0.55225$ $EH = 1.15175$ $CN_3 = 1.57143$ $BP = 1.53061$ $GM = 0.57536$
$N_4 = 0.70000$ $AF = 0.28571$ $KN_3 = 1.11117$ $BQ = 2.20588$ $R - \frac{GM - AF}{AB - FG} = 0.00000$

Definitions.

$$R - \frac{\left[\begin{array}{l} \left(N_3 \cdot N_5 - N_3 \cdot N_6 + N_4 \cdot N_6 + N_3^2 \cdot N_4 \cdot N_6\right) \cdot \left(N_1 + N_2\right) \cdot N_1 - \left(N_5 - N_6\right) \cdot N_1^2 \cdot N_3^2 \ \ldots \\ + \ - \sqrt{N_1^2 \cdot N_6^2 \cdot \left[N_3^2 \cdot \left(N_1 + N_1 \cdot N_4 + N_2 \cdot N_4\right) - \left(N_3 - N_4\right) \cdot \left(N_1 + N_2\right)\right]^2 + N_1^2 \cdot N_3^2 \cdot N_5^2 \cdot \left(N_1 \cdot N_3 - N_2 - N_1\right)^2} \ \ldots \\ \quad + \ -2 \cdot N_3 \cdot N_5 \cdot N_6 \cdot \left(3 \cdot N_1^2 + 4 \cdot N_1 \cdot N_2 + 2 \cdot N_2^2\right) \cdot \left(N_1 \cdot N_3 - N_2 - N_1\right) \cdot \left[N_3^2 \cdot \left(N_1 + N_1 \cdot N_4 + N_2 \cdot N_4\right) - \left(N_3 - N_4\right) \cdot \left(N_1 + N_2\right)\right] \end{array}\right] \cdot \left(N_1 + N_2\right)^2}{2 \cdot N_3 \cdot N_5 \cdot \left(N_1 \cdot N_3 - N_2 - N_1\right) \cdot \left(N_1 + N_2\right)^3} = 0$$

4RST6AB3R10



$N_1 = 0.73353$ $N_4 = 0.53249$ $N_7 = 2.79739$
$N_2 = 0.99504$ $N_5 = 2.53768$ $R = 1.11879$
$N_3 = 1.37752$ $N_6 = 1.71544$

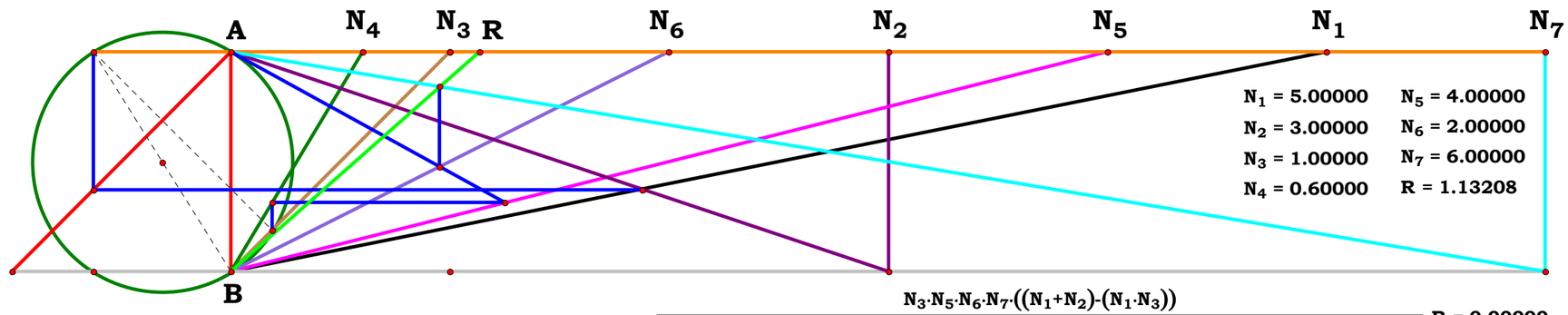
Unit. $AB := 1$ Given. $N_1 := .73353$ $N_2 := .99504$ $N_3 := 1.37752$ $N_4 := .53249$

$N_5 := 2.53768$ $N_6 := 1.71544$ $N_7 := 2.79739$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $F := \frac{N_u}{N_6}$ $G := \frac{N_u}{N_7}$

$T := 19$ $U := 18$ $V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$j := \frac{T}{N_1}$ $k := \frac{U}{N_2}$ $l := \frac{V}{N_3}$ $m := \frac{W}{N_4}$ $n := \frac{X}{N_5}$ $o := \frac{Y}{N_6}$ $p := \frac{Z}{N_7}$



$N_1 = 5.00000$ $N_5 = 4.00000$
$N_2 = 3.00000$ $N_6 = 2.00000$
$N_3 = 1.00000$ $N_7 = 6.00000$
$N_4 = 0.60000$ $R = 1.13208$

$$\frac{N_3 \cdot N_5 \cdot N_6 \cdot N_7 \cdot ((N_1+N_2)-(N_1 \cdot N_3))}{N_6 \cdot N_7 \cdot (N_3{}^2 \cdot (N_1+N_1 \cdot N_4+N_2 \cdot N_4)-(N_3-N_4) \cdot (N_1+N_2))-N_3 \cdot N_5 \cdot (N_6-N_7) \cdot ((N_1+N_2)-(N_1 \cdot N_3))} - R = 0.00000$$

Descriptions.

$AC := \frac{N_1}{N_1 + N_2}$ $BN_3 := \sqrt{AB^2 + N_3{}^2}$

$CN_3 := N_3 + AC$ $EN_3 := \frac{N_3 \cdot CN_3}{BN_3}$

$BG := \frac{N_3 \cdot (BN_3 - EN_3)}{BN_3}$ $FG := \frac{BG}{N_4}$

$FH := N_5 \cdot FG$ $BJ := \frac{FH}{(AB - FG)}$

$BO := \frac{N_6 \cdot BJ}{N_6 + BJ}$ $KO := \frac{N_7 - BO}{N_7}$

$R := \frac{BO}{KO}$ $R = 1.118775$

Definitions.

$$R - \frac{N_3 \cdot N_5 \cdot N_6 \cdot N_7 \cdot (N_1 + N_2 - N_1 \cdot N_3)}{N_6 \cdot N_7 \cdot [N_3{}^2 \cdot (N_1 + N_1 \cdot N_4 + N_2 \cdot N_4) - (N_3 - N_4) \cdot (N_1 + N_2)] - N_3 \cdot N_5 \cdot (N_6 - N_7) \cdot (N_1 + N_2 - N_1 \cdot N_3)} = 0$$

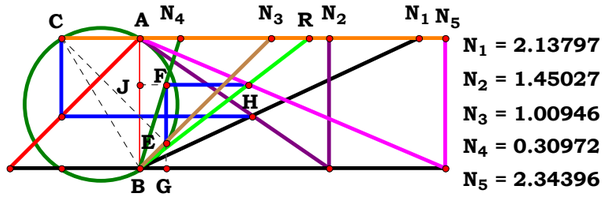
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$ $N_6 - \frac{N_u}{F} = 0$ $N_7 - \frac{N_u}{G} = 0$

$$R - \frac{D \cdot N_u \cdot [C \cdot (A + B) - B \cdot N_u]}{N_u{}^2 \cdot E \cdot (A + B) + N_u \cdot B \cdot D \cdot (E - F + G) + C \cdot [E \cdot (C - D) + D \cdot (F - G)] \cdot (A + B)} = 0$$

$N_1 - \frac{T}{j} = 0$ $N_2 - \frac{U}{k} = 0$ $N_3 - \frac{V}{l} = 0$ $N_4 - \frac{W}{m} = 0$ $N_5 - \frac{X}{n} = 0$ $N_6 - \frac{Y}{o} = 0$ $N_7 - \frac{Z}{p} = 0$

$$R - \frac{V \cdot X \cdot Y \cdot Z \cdot m \cdot (T \cdot k \cdot l - T \cdot V \cdot k + U \cdot j \cdot l)}{W \cdot Y \cdot Z \cdot n \cdot (V^2 + l^2) \cdot (T \cdot k + U \cdot j) + V \cdot m \cdot (X \cdot Y \cdot p - X \cdot Z \cdot o + Y \cdot Z \cdot n) \cdot (T \cdot V \cdot k - T \cdot k \cdot l - U \cdot j \cdot l)} = 0$$

4RST6AB3R11



$N_1 = 2.13797$
$N_2 = 1.45027$
$N_3 = 1.00946$
$N_4 = 0.30972$
$N_5 = 2.34396$
$R = 1.29931$

Unit. $AB := 1$ **Given.** $N_1 := 2.13797$ $N_2 := 1.45027$ $N_3 := 1.00946$ $N_4 := .30972$ $N_5 := 2.34396$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$

$V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

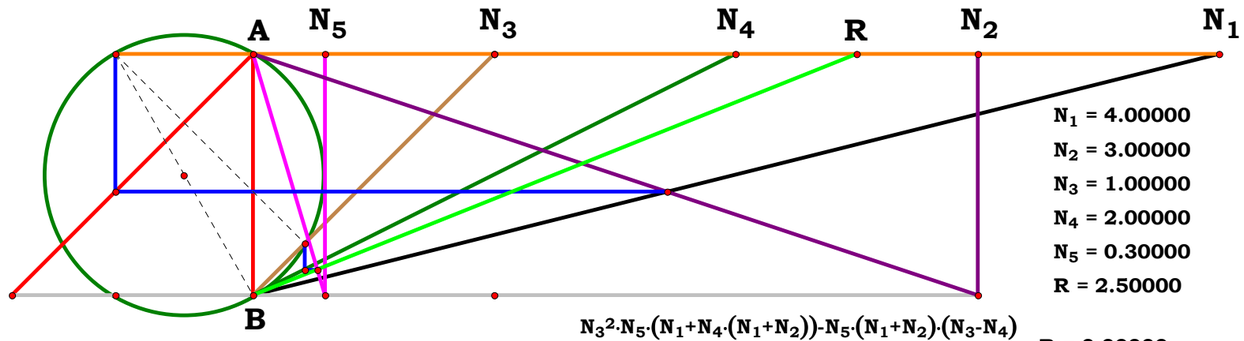
$l := \frac{V}{N_1}$ $m := \frac{W}{N_2}$ $n := \frac{X}{N_3}$ $o := \frac{Y}{N_4}$ $p := \frac{Z}{N_5}$

Descriptions.

$AC := \frac{N_1}{N_1 + N_2}$ $BN_3 := \sqrt{N_3^2 + AB^2}$ $CN_3 := N_3 + AC$

$EN_3 := \frac{N_3 \cdot CN_3}{BN_3}$ $BG := \frac{N_3 \cdot (BN_3 - EN_3)}{BN_3}$ $FG := \frac{BG}{N_4}$

$HJ := N_5 \cdot (AB - FG)$ $R := \frac{HJ}{FG}$ $R = 1.299387$



$N_1 = 4.00000$
$N_2 = 3.00000$
$N_3 = 1.00000$
$N_4 = 2.00000$
$N_5 = 0.30000$
$R = 2.50000$

$\frac{N_3^2 \cdot N_5 \cdot (N_1 + N_4 \cdot (N_1 + N_2)) - N_5 \cdot (N_1 + N_2) \cdot (N_3 - N_4)}{N_3 \cdot ((N_1 + N_2) - (N_1 \cdot N_3))} - R = 0.00000$

Definitions.

$$R - \frac{N_3^2 \cdot N_5 \cdot \left[N_1 + N_4 \cdot (N_1 + N_2)\right] - N_5 \cdot (N_3 - N_4) \cdot (N_1 + N_2)}{N_3 \cdot (N_1 + N_2 - N_1 \cdot N_3)} = 0$$

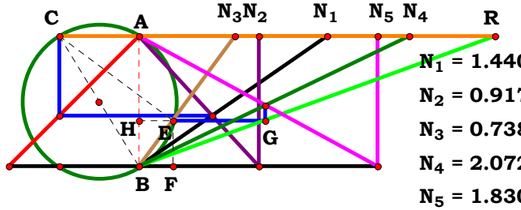
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$

$$R - \frac{(A + B) \cdot N_u^3 + B \cdot D \cdot N_u^2 + N_u \cdot C \cdot (C - D) \cdot (A + B)}{D \cdot E \cdot \left[C \cdot (A + B) - B \cdot N_u\right]} = 0$$

$N_1 - \frac{V}{l} = 0$ $N_2 - \frac{W}{m} = 0$ $N_3 - \frac{X}{n} = 0$ $N_4 - \frac{Y}{o} = 0$ $N_5 - \frac{Z}{p} = 0$

$$R - \frac{Y \cdot Z \cdot (X^2 + n^2) \cdot (V \cdot m + W \cdot l) + X \cdot Z \cdot o \cdot (V \cdot X \cdot m - V \cdot m \cdot n - W \cdot l \cdot n)}{X \cdot o \cdot p \cdot (V \cdot m \cdot n - V \cdot X \cdot m + W \cdot l \cdot n)} = 0$$

4RST6AB3R12



$N_1 = 1.44059$
$N_2 = 0.91756$
$N_3 = 0.73826$
$N_4 = 2.07253$
$N_5 = 1.83061$
$R = 2.73555$

Unit. $AB := 1$ **Given.** $N_1 := 1.44059$ $N_2 := .91756$ $N_3 := .73826$

$N_4 := 2.07253$ $N_5 := 1.83061$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$

$V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$l := \frac{V}{N_1}$ $m := \frac{W}{N_2}$ $n := \frac{X}{N_3}$ $o := \frac{Y}{N_4}$ $p := \frac{Z}{N_5}$

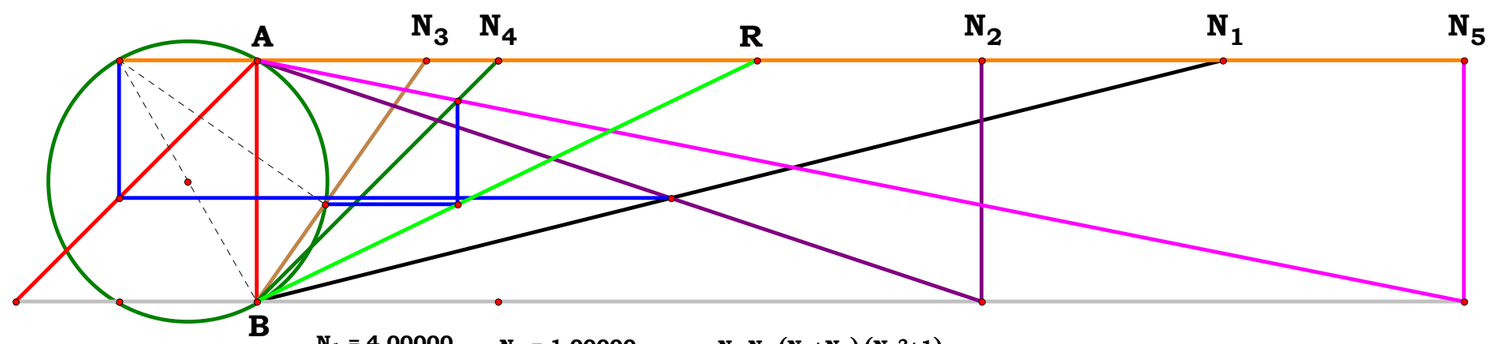
Descriptions.

$AC := \frac{N_1}{N_1 + N_2}$ $BN_3 := \sqrt{N_3^2 + AB^2}$

$CN_3 := N_3 + AC$ $EN_3 := \frac{N_3 \cdot CN_3}{BN_3}$

$EF := \frac{(BN_3 - EN_3)}{BN_3}$ $HG := \frac{N_5 \cdot N_4}{N_5 + N_4}$

$R := \frac{HG}{EF}$ $R = 2.735571$



$N_1 = 4.00000$ $N_4 = 1.00000$ $\frac{N_4 \cdot N_5 \cdot (N_1 + N_2) \cdot (N_3^2 + 1)}{(N_4 + N_5) \cdot ((N_1 + N_2) - N_1 \cdot N_3)} - R = 0.00000$

$N_2 = 3.00000$ $N_5 = 5.00000$

$N_3 = 0.70000$ $R = 2.06944$

Definitions.

$$R - \frac{N_4 \cdot N_5 \cdot (N_1 + N_2) \cdot (N_3^2 + 1)}{(N_4 + N_5) \cdot (N_1 + N_2 - N_1 \cdot N_3)} = 0$$

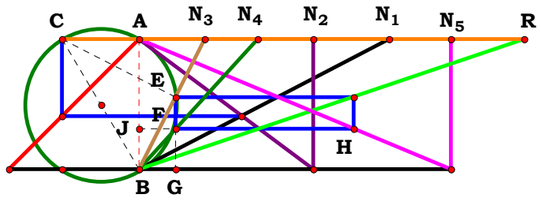
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$

$$R - \frac{N_u \cdot (C^2 + N_u^2) \cdot (A + B)}{C \cdot (D + E) \cdot [C \cdot (A + B) - B \cdot N_u]} = 0$$

$N_1 - \frac{V}{l} = 0$ $N_2 - \frac{W}{m} = 0$ $N_3 - \frac{X}{n} = 0$ $N_4 - \frac{Y}{o} = 0$ $N_5 - \frac{Z}{p} = 0$

$$R - \frac{Y \cdot Z \cdot (V \cdot m + W \cdot l) \cdot (X^2 + n^2)}{n \cdot (Y \cdot p + Z \cdot o) \cdot (V \cdot m \cdot n - V \cdot X \cdot m + W \cdot l \cdot n)} = 0$$

4RST6AB3R13



$N_1 = 1.91519$
$N_2 = 1.33405$
$N_3 = 0.50580$
$N_4 = 0.91023$
$N_5 = 2.39239$
$R = 2.95122$

Unit. $AB := 1$ **Given.** $N_1 := 1.91519$ $N_2 := 1.33405$ $N_3 := .50580$

$N_4 := .91023$ $N_5 := 2.39239$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$

$V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$l := \frac{V}{N_1}$ $m := \frac{W}{N_2}$ $n := \frac{X}{N_3}$ $o := \frac{Y}{N_4}$ $p := \frac{Z}{N_5}$

Descriptions.

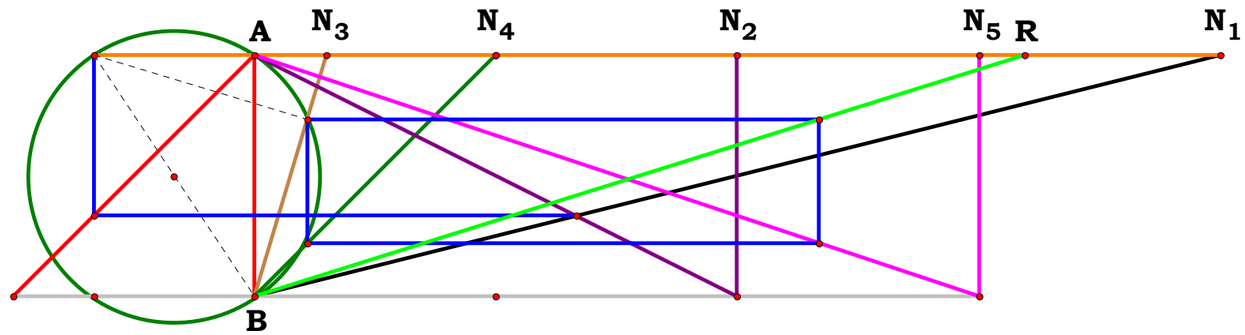
$AC := \frac{N_1}{N_1 + N_2}$ $BN_3 := \sqrt{N_3^2 + AB^2}$

$CN_3 := N_3 + AC$ $EN_3 := \frac{N_3 \cdot CN_3}{BN_3}$

$BG := \frac{N_3 \cdot (BN_3 - EN_3)}{BN_3}$ $FG := \frac{BG}{N_4}$

$JH := N_5 \cdot (AB - FG)$ $EG := \frac{BN_3 - EN_3}{BN_3}$

$R := \frac{JH}{EG}$ $R = 2.951229$



$N_1 = 4.00000$ $N_4 = 1.00000$

$N_2 = 2.00000$ $N_5 = 3.00000$

$N_3 = 0.30000$ $R = 3.18750$

$$\frac{N_5 \cdot (N_3^2 \cdot (N_1 + N_1 \cdot N_4 + N_2 \cdot N_4) - (N_3 - N_4) \cdot (N_1 + N_2))}{N_4 \cdot ((N_1 + N_2) - (N_1 \cdot N_3))} - R = 0.00000$$

Definitions.

$$R - \frac{N_5 \cdot \left[N_3^2 \cdot (N_1 + N_1 \cdot N_4 + N_2 \cdot N_4) - (N_3 - N_4) \cdot (N_1 + N_2)\right]}{N_4 \cdot (N_1 + N_2 - N_1 \cdot N_3)} = 0$$

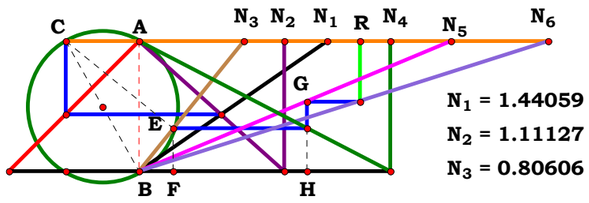
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$

$$R - \frac{(A + B) \cdot N_u^3 + B \cdot D \cdot N_u^2 + N_u \cdot C \cdot (C - D) \cdot (A + B)}{C \cdot E \cdot \left[C \cdot (A + B) - B \cdot N_u\right]} = 0$$

$N_1 - \frac{V}{l} = 0$ $N_2 - \frac{W}{m} = 0$ $N_3 - \frac{X}{n} = 0$ $N_4 - \frac{Y}{o} = 0$ $N_5 - \frac{Z}{p} = 0$

$$R - \frac{Y \cdot Z \cdot (X^2 + n^2) \cdot (V \cdot m + W \cdot l) + X \cdot Z \cdot o \cdot (V \cdot X \cdot m - V \cdot m \cdot n - W \cdot l \cdot n)}{Y \cdot n \cdot p \cdot (V \cdot m \cdot n - V \cdot X \cdot m + W \cdot l \cdot n)} = 0$$

4RST6AB3R14



$N_1 = 1.44059$ $N_2 = 1.11127$ $N_3 = 0.80606$ $N_4 = 1.92724$ $N_5 = 2.39239$ $N_6 = 3.13925$ $R = 1.69351$

Unit. $AB := 1$ **Given.** $N_1 := 1.44059$ $N_2 := 1.11127$ $N_3 := .80606$ $N_4 := 1.92724$ $N_5 := 2.39239$ $N_6 := 3.13925$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $F := \frac{N_u}{N_6}$

$U := 18$ $V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$k := \frac{U}{N_1}$ $l := \frac{V}{N_2}$ $m := \frac{W}{N_3}$ $n := \frac{X}{N_4}$ $o := \frac{Y}{N_5}$ $p := \frac{Z}{N_6}$

Descriptions.

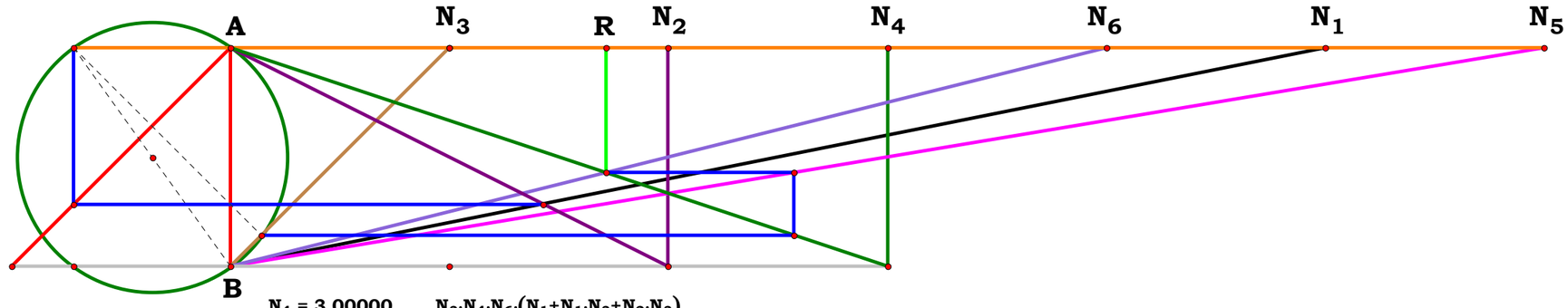
$AC := \frac{N_1}{N_1 + N_2}$ $BN_3 := \sqrt{N_3^2 + AB^2}$

$CN_3 := N_3 + AC$ $EN_3 := \frac{N_3 \cdot CN_3}{BN_3}$

$EF := \frac{BN_3 - EN_3}{BN_3}$ $BH := N_4 \cdot (AB - EF)$

$GH := \frac{BH}{N_5}$ $R := N_6 \cdot GH$

$R = 1.693517$



$N_1 = 5.00000$ $N_2 = 2.00000$ $N_3 = 1.00000$ $N_4 = 3.00000$ $N_5 = 6.00000$ $N_6 = 4.00000$ $R = 1.71429$

$\frac{N_3 \cdot N_4 \cdot N_6 \cdot (N_1 + N_1 \cdot N_3 + N_2 \cdot N_3)}{N_5 \cdot (N_1 + N_2) \cdot (N_3^2 + 1)} - R = 0.00000$

Definitions.

$$R - \frac{N_3 \cdot N_4 \cdot N_6 \cdot (N_1 + N_1 \cdot N_3 + N_2 \cdot N_3)}{N_5 \cdot (N_1 + N_2) \cdot (N_3^2 + 1)} = 0$$

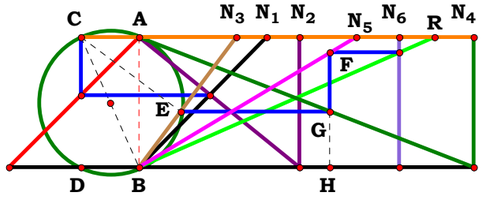
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$ $N_6 - \frac{N_u}{F} = 0$

$$R - \frac{E \cdot N_u^2 \cdot [B \cdot C + N_u \cdot (A + B)]}{D \cdot F \cdot (C^2 + N_u^2) \cdot (A + B)} = 0$$

$N_1 - \frac{U}{k} = 0$ $N_2 - \frac{V}{l} = 0$ $N_3 - \frac{W}{m} = 0$ $N_4 - \frac{X}{n} = 0$ $N_5 - \frac{Y}{o} = 0$ $N_6 - \frac{Z}{p} = 0$

$$R - \frac{W \cdot X \cdot Z \cdot o \cdot (U \cdot W \cdot l + V \cdot W \cdot k + U \cdot l \cdot m)}{Y \cdot n \cdot p \cdot (U \cdot l + V \cdot k) \cdot (W^2 + m^2)} = 0$$

4RST6AB3R15



$N_1 = 0.97567$ $N_4 = 2.56650$
$N_2 = 1.22750$ $N_5 = 1.66595$
$N_3 = 0.74794$ $N_6 = 1.99633$
$R = 2.26889$

Unit. $AB := 1$ **Given.** $N_1 := .97567$ $N_2 := 1.22750$ $N_3 := .74794$

$N_4 := 2.56650$ $N_5 := 1.66595$ $N_6 := 1.99633$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $F := \frac{N_u}{N_6}$

$U := 18$ $V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$k := \frac{U}{N_1}$ $l := \frac{V}{N_2}$ $m := \frac{W}{N_3}$ $n := \frac{X}{N_4}$ $o := \frac{Y}{N_5}$ $p := \frac{Z}{N_6}$

Descriptions.

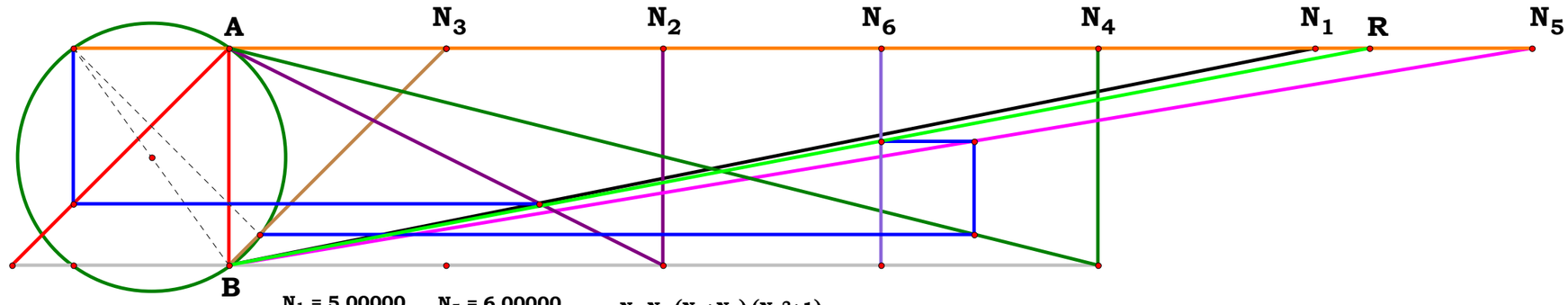
$AC := \frac{N_1}{N_1 + N_2}$ $BN_3 := \sqrt{N_3^2 + AB^2}$

$CN_3 := N_3 + AC$ $EN_3 := \frac{N_3 \cdot CN_3}{BN_3}$

$GH := \frac{BN_3 - EN_3}{BN_3}$

$BH := N_4 \cdot (AB - GH)$ $FH := \frac{BH}{N_5}$

$R := \frac{N_6}{FH}$ $R = 2.268889$



$N_1 = 5.00000$ $N_5 = 6.00000$
$N_2 = 2.00000$ $N_6 = 3.00000$
$N_3 = 1.00000$ $R = 5.25000$
$N_4 = 4.00000$

$\frac{N_5 \cdot N_6 \cdot (N_1 + N_2) \cdot (N_3^2 + 1)}{N_3 \cdot N_4 \cdot (N_1 + N_1 \cdot N_3 + N_2 \cdot N_3)} - R = 0.00000$

Definitions.

$R - \frac{N_5 \cdot N_6 \cdot (N_1 + N_2) \cdot (N_3^2 + 1)}{N_3 \cdot N_4 \cdot (N_1 + N_1 \cdot N_3 + N_2 \cdot N_3)} = 0$

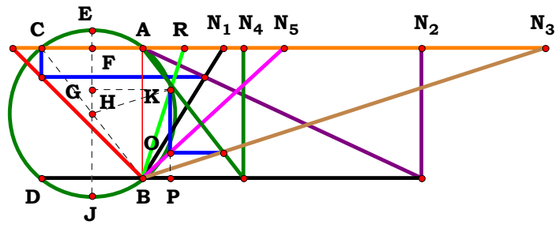
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$ $N_6 - \frac{N_u}{F} = 0$

$R - \frac{D \cdot (C^2 + N_u^2) \cdot (A + B)}{E \cdot F \cdot [B \cdot C + N_u \cdot (A + B)]} = 0$

$N_1 - \frac{U}{k} = 0$ $N_2 - \frac{V}{l} = 0$ $N_3 - \frac{W}{m} = 0$ $N_4 - \frac{X}{n} = 0$ $N_5 - \frac{Y}{o} = 0$ $N_6 - \frac{Z}{p} = 0$

$R - \frac{Y \cdot Z \cdot n \cdot (U \cdot l + V \cdot k) \cdot (W^2 + m^2)}{W \cdot X \cdot o \cdot p \cdot (U \cdot W \cdot l + V \cdot W \cdot k + U \cdot l \cdot m)} = 0$

4RST6AB4R0



$N_1 = 0.61730$
$N_2 = 2.13797$
$N_3 = 3.09190$
$N_4 = 0.77463$
$N_5 = 1.08481$
$R = 0.31740$

Unit. $AB := 1$ **Given.** $N_1 := .61730$ $N_2 := 2.13797$ $N_3 := 3.09190$ $N_4 := .77463$ $N_5 := 1.08481$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$

$V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$l := \frac{V}{N_1}$ $m := \frac{W}{N_2}$ $n := \frac{X}{N_3}$ $o := \frac{Y}{N_4}$ $p := \frac{Z}{N_5}$

Descriptions.

$AC := \frac{N_2}{N_1 + N_2}$ $EJ := \sqrt{AB^2 + AC^2}$

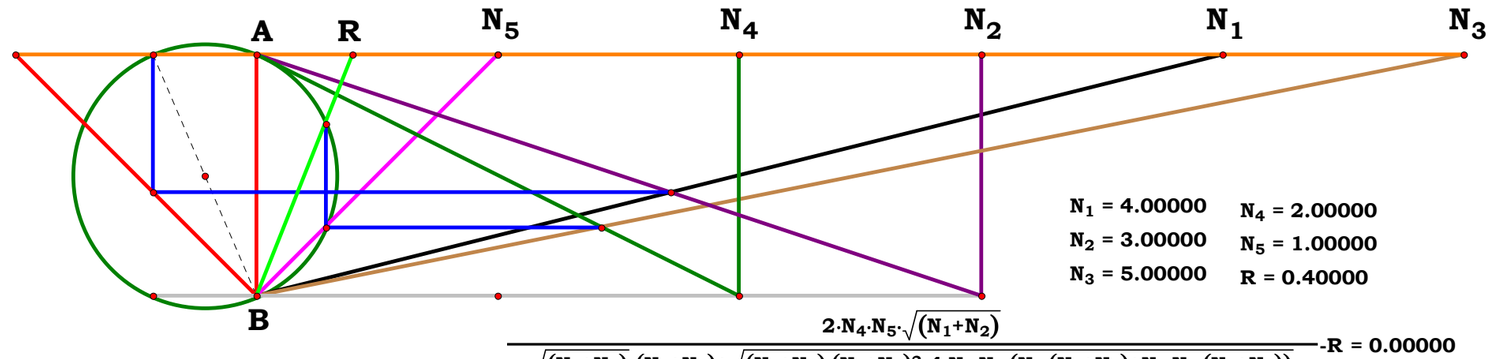
$EF := \frac{EJ - AB}{2}$ $AF := \frac{AC}{2}$

$OP := \frac{N_4}{N_3 + N_4}$ $BP := N_5 \cdot OP$

$GK := BP + AF$ $HK := \frac{EJ}{2}$

$GH := \sqrt{HK^2 - GK^2}$ $KO := \frac{AB}{2} + GH$

$R := \frac{BP}{KO}$ $R = 0.317401$



$N_1 = 4.00000$ $N_4 = 2.00000$
$N_2 = 3.00000$ $N_5 = 1.00000$
$N_3 = 5.00000$ $R = 0.40000$

$$\frac{2 \cdot N_4 \cdot N_5 \cdot \sqrt{(N_1+N_2)}}{\sqrt{(N_1+N_2)} \cdot (N_3+N_4) + \sqrt{(N_1+N_2) \cdot (N_3+N_4)^2 - 4 \cdot N_4 \cdot N_5 \cdot (N_2 \cdot (N_3+N_4) + N_4 \cdot N_5 \cdot (N_1+N_2))}} - R = 0.00000$$

Definitions.

$$R - \frac{2 \cdot N_4 \cdot N_5 \cdot \sqrt{N_1 + N_2}}{\sqrt{N_1 + N_2} \cdot (N_3 + N_4) + \sqrt{(N_1 + N_2) \cdot (N_3 + N_4)^2 - 4 \cdot N_4 \cdot N_5 \cdot [N_2 \cdot (N_3 + N_4) + N_4 \cdot N_5 \cdot (N_1 + N_2)]}} = 0$$

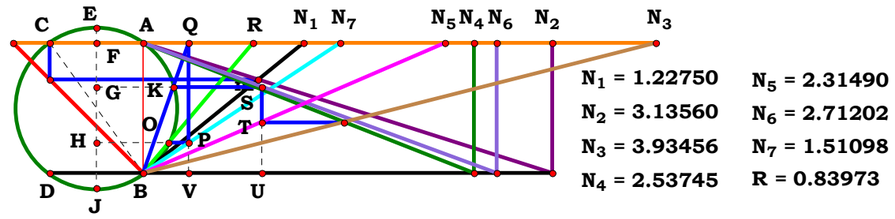
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$

$$R - \frac{2 \cdot C \cdot N_u \cdot \sqrt{N_u \cdot (A+B)}}{\sqrt{N_u \cdot [E^2 \cdot (A+B) \cdot (C+D)^2 - 4 \cdot C \cdot N_u \cdot [A \cdot E \cdot (C+D) + C \cdot N_u \cdot (A+B)]]} + \sqrt{N_u \cdot (A+B)} \cdot E \cdot (C+D)} = 0$$

$N_1 - \frac{V}{l} = 0$ $N_2 - \frac{W}{m} = 0$ $N_3 - \frac{X}{n} = 0$ $N_4 - \frac{Y}{o} = 0$ $N_5 - \frac{Z}{p} = 0$

$$R - \frac{2 \cdot Y \cdot Z \cdot n \cdot \sqrt{V \cdot m + W \cdot l}}{\sqrt{p^2 \cdot (X \cdot o + Y \cdot n)^2 \cdot (V \cdot m + W \cdot l) - 4 \cdot Z^2 \cdot Y^2 \cdot n^2 \cdot (V \cdot m + W \cdot l) - 4 \cdot Z \cdot W \cdot Y \cdot l \cdot n \cdot p \cdot (X \cdot o + Y \cdot n)} + \sqrt{V \cdot m + W \cdot l} \cdot p \cdot (X \cdot o + Y \cdot n)} = 0$$

4RST6AB4R1



$N_1 = 1.22750$ $N_5 = 2.31490$
$N_2 = 3.13560$ $N_6 = 2.71202$
$N_3 = 3.93456$ $N_7 = 1.51098$
$N_4 = 2.53745$ $R = 0.83973$

Unit. $AB := 1$ **Given.** $N_1 := 1.22750$ $N_2 := 3.13560$ $N_3 := 3.93456$
$N_4 := 2.53745$ $N_5 := 2.31490$ $N_6 := 2.71202$ $N_7 := 1.51098$

Descriptions.

$$AC := \frac{N_2}{N_1 + N_2} \qquad EJ := \sqrt{AB^2 + AC^2}$$

$$AF := \frac{AC}{2} \qquad EF := \frac{EJ - AB}{2}$$

$$TU := \frac{N_4}{N_3 + N_4}$$

$$BU := N_5 \cdot TU$$

$$SU := \frac{N_6 - BU}{N_6}$$

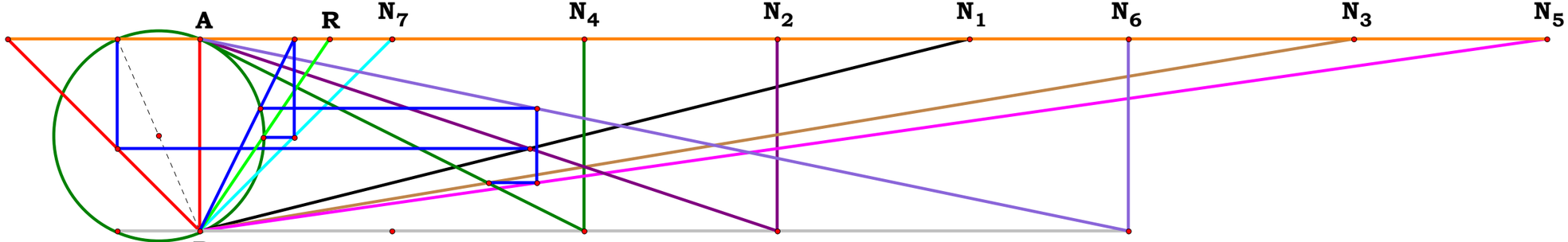
$$GJ := SU + EF$$

$$GK := \sqrt{GJ \cdot (EJ - GJ)} \qquad AQ := \frac{GK - AF}{SU}$$

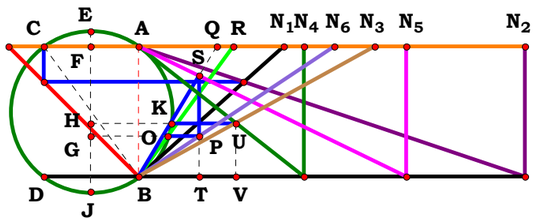
$$PV := \frac{AQ}{N_7} \qquad HJ := PV + EF$$

$$HO := \sqrt{HJ \cdot (EJ - HJ)} \qquad R := \frac{HO - AF}{PV}$$

$R = 0.83973$



$N_1 = 4.00000$ $N_5 = 7.00000$ $AB = 1.00000$ $EF = 0.04398$ $GJ = 0.68157$ $HJ = 0.53335$
$N_2 = 3.00000$ $N_6 = 4.82872$ $AC = 0.42857$ $TU = 0.25000$ $GK = 0.52630$ $HO = 0.54388$
$N_3 = 6.00000$ $N_7 = 1.00000$ $EJ = 1.08797$ $BU = 1.75000$ $AQ = 0.48936$ $R - \frac{HO-AF}{PV} = 0.00000$
$N_4 = 2.00000$ $R = 0.67351$ $AF = 0.21429$ $SU = 0.63759$ $PV = 0.48936$



$N_1 = 1.11127$ $N_5 = 2.05339$
$N_2 = 2.96126$ $N_6 = 1.50130$
$N_3 = 1.81338$ $R = 0.72418$
$N_4 = 1.26861$

Unit. $AB := 1$ **Given.** $N_1 := 1.11127$ $N_2 := 2.96126$ $N_3 := 1.81338$
$N_4 := 1.26961$ $N_5 := 2.05339$ $N_6 := 1.50130$

Descriptions.

$$AC := \frac{N_2}{N_1 + N_2} \qquad EJ := \sqrt{AB^2 + AC^2}$$

$$AF := \frac{AC}{2} \qquad EF := \frac{EJ - AB}{2}$$

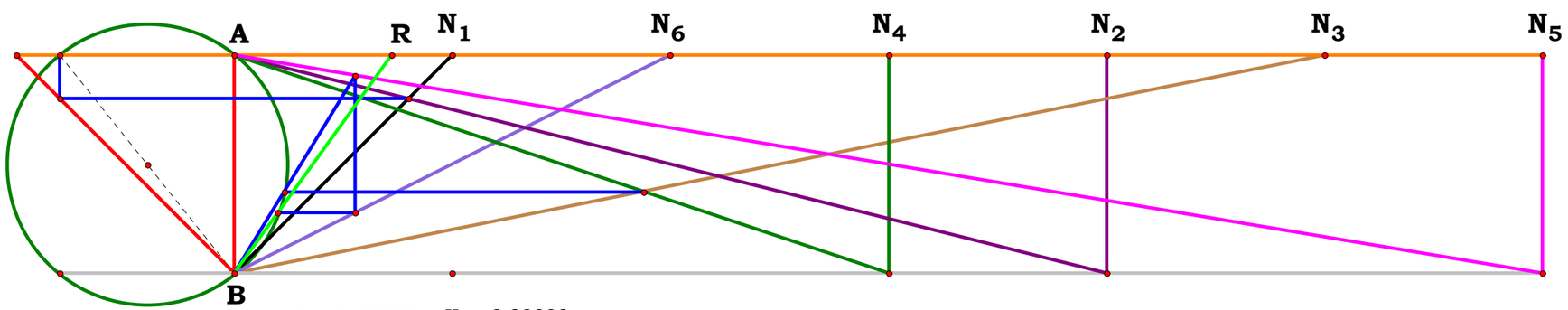
$$UV := \frac{N_4}{N_3 + N_4} \qquad HJ := UV + EF$$

$$HK := \sqrt{HJ \cdot (EJ - HJ)} \qquad AQ := \frac{HK - AF}{UV}$$

$$BT := \frac{AQ \cdot N_5}{AQ + N_5} \qquad PT := \frac{BT}{N_6}$$

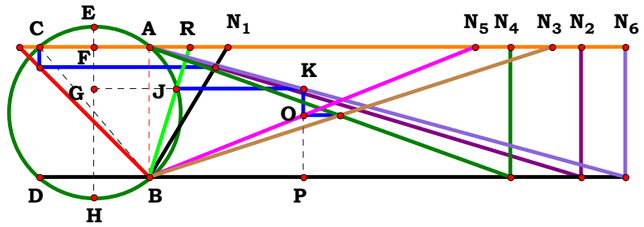
$$GJ := PT + EF \qquad GO := \sqrt{GJ \cdot (EJ - GJ)}$$

$$R := \frac{GO - AF}{PT} \qquad R = 0.724289$$



$N_1 = 1.00000$ $N_4 = 3.00000$ $AB = 1.00000$ $EF = 0.14031$ $AQ = 0.60798$ $GO = 0.59986$
$N_2 = 4.00000$ $N_5 = 6.00000$ $AC = 0.80000$ $UV = 0.37500$ $BT = 0.55204$
$N_3 = 5.00000$ $N_6 = 2.00000$ $EJ = 1.28062$ $HJ = 0.51531$ $PT = 0.27602$ $R - \frac{GO-AF}{PT} = 0.00000$
$R = 0.72408$ $AF = 0.40000$ $HK = 0.62799$ $GJ = 0.41633$

4RST6AB4R3



$N_1 = 0.59793$
$N_2 = 3.30995$
$N_3 = 3.09190$
$N_4 = 2.76991$
$N_5 = 2.49893$
$N_6 = 3.65154$
$R = 0.30667$

Unit. $AB := 1$ Given. $N_1 := .59793$ $N_2 := 3.30995$ $N_3 := 3.09190$

$N_4 := 2.76991$ $N_5 := 2.49893$ $N_6 := 3.65154$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $F := \frac{N_u}{N_6}$

$U := 18$ $V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$k := \frac{U}{N_1}$ $l := \frac{V}{N_2}$ $m := \frac{W}{N_3}$ $n := \frac{X}{N_4}$ $o := \frac{Y}{N_5}$ $p := \frac{Z}{N_6}$

Descriptions.

$AC := \frac{N_2}{N_1 + N_2}$ $EH := \sqrt{AB^2 + AC^2}$ $EF := \frac{EH - AB}{2}$ $AF := \frac{AC}{2}$ $OP := \frac{N_4}{N_3 + N_4}$

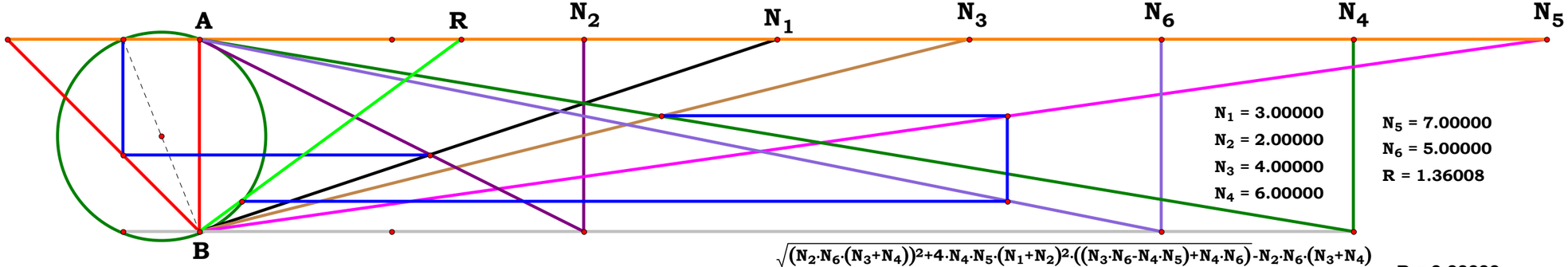
$BP := N_5 \cdot OP$ $KP := AB - \frac{BP}{N_6}$

$GH := KP + EF$

$GJ := \sqrt{GH \cdot (EH - GH)}$

$R := \frac{GJ - AF}{KP}$

$R = 0.306668$



$\frac{\sqrt{(N_2 \cdot N_6 \cdot (N_3 + N_4))^2 + 4 \cdot N_4 \cdot N_5 \cdot (N_1 + N_2)^2 \cdot ((N_3 \cdot N_6 - N_4 \cdot N_5) + N_4 \cdot N_6)} - N_2 \cdot N_6 \cdot (N_3 + N_4)}{2 \cdot (N_1 + N_2) \cdot ((N_3 \cdot N_6 - N_4 \cdot N_5) + N_4 \cdot N_6)} - R = 0.00000$

Definitions.

$$R - \frac{\sqrt{N_2^2 \cdot N_6^2 \cdot (N_3 + N_4)^2 + 4 \cdot N_4 \cdot N_5 \cdot (N_1 + N_2)^2 \cdot (N_3 \cdot N_6 - N_4 \cdot N_5 + N_4 \cdot N_6)} - N_2 \cdot N_6 \cdot (N_3 + N_4)}{2 \cdot (N_1 + N_2) \cdot (N_3 \cdot N_6 - N_4 \cdot N_5 + N_4 \cdot N_6)} = 0$$

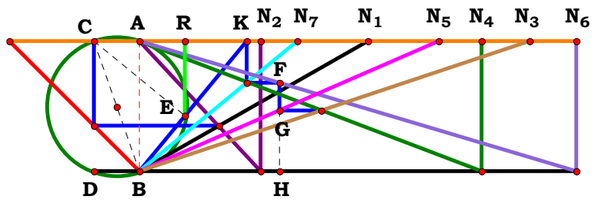
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$ $N_6 - \frac{N_u}{F} = 0$

$$R - \frac{\sqrt{A^2 \cdot E^2 \cdot (C + D)^2 + 4 \cdot C \cdot F \cdot [D \cdot E + C \cdot (E - F)] \cdot (A + B)^2} - A \cdot E \cdot (C + D)}{2 \cdot (A + B) \cdot [C \cdot (E - F) + D \cdot E]} = 0$$

$N_1 - \frac{U}{k} = 0$ $N_2 - \frac{V}{l} = 0$ $N_3 - \frac{W}{m} = 0$ $N_4 - \frac{X}{n} = 0$ $N_5 - \frac{Y}{o} = 0$ $N_6 - \frac{Z}{p} = 0$

$$R - \frac{\sqrt{4 \cdot X \cdot Y \cdot m \cdot p \cdot (U \cdot l + V \cdot k)^2 \cdot (W \cdot Z \cdot n \cdot o - X \cdot Y \cdot m \cdot p + X \cdot Z \cdot m \cdot o) + V^2 \cdot Z^2 \cdot k^2 \cdot o^2 \cdot (W \cdot n + X \cdot m)^2} - V \cdot Z \cdot k \cdot o \cdot (W \cdot n + X \cdot m)}{(2 \cdot U \cdot l + 2 \cdot V \cdot k) \cdot (W \cdot Z \cdot n \cdot o - X \cdot Y \cdot m \cdot p + X \cdot Z \cdot m \cdot o)} = 0$$

4RST6AB4R4



$N_1 = 1.75053$ $N_3 = 2.99504$ $N_5 = 2.29553$ $N_7 = 1.21072$

$N_2 = 0.92724$ $N_4 = 2.62462$ $N_6 = 3.35128$ $R = 0.35080$

Unit. $AB := 1$ Given. $N_1 := 1.75053$ $N_2 := .92724$ $N_3 := 2.99504$ $N_4 := 2.62462$

$N_5 := 2.29553$ $N_6 := 3.35128$ $N_7 := 1.21072$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $F := \frac{N_u}{N_6}$ $G := \frac{N_u}{N_7}$

$T := 19$ $U := 18$ $V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$j := \frac{T}{N_1}$ $k := \frac{U}{N_2}$ $l := \frac{V}{N_3}$ $m := \frac{W}{N_4}$ $n := \frac{X}{N_5}$ $o := \frac{Y}{N_6}$ $p := \frac{Z}{N_7}$

Descriptions.

$AC := \frac{N_2}{N_1 + N_2}$ $GH := \frac{N_4}{N_3 + N_4}$ $BH := N_5 \cdot GH$

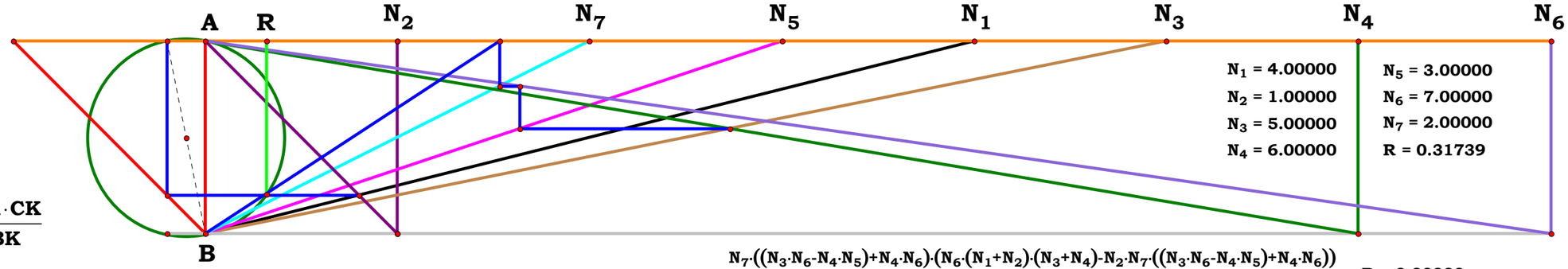
$FH := \frac{N_6 - BH}{N_6}$

$AK := N_7 \cdot FH$

$BK := \sqrt{AK^2 + AB^2}$

$CK := AK + AC$ $EK := \frac{AK \cdot CK}{BK}$

$R := AK \cdot \frac{(BK - EK)}{BK}$ $R = 0.350796$



$N_1 = 4.00000$ $N_5 = 3.00000$

$N_2 = 1.00000$ $N_6 = 7.00000$

$N_3 = 5.00000$ $N_7 = 2.00000$

$N_4 = 6.00000$ $R = 0.31739$

$$\frac{N_7 \cdot ((N_3 \cdot N_6 - N_4 \cdot N_5) + N_4 \cdot N_6) \cdot (N_6 \cdot (N_1 + N_2) \cdot (N_3 + N_4) - N_2 \cdot N_7 \cdot ((N_3 \cdot N_6 - N_4 \cdot N_5) + N_4 \cdot N_6))}{(N_1 + N_2) \cdot (N_6^2 \cdot (N_3 + N_4)^2 + N_7^2 \cdot ((N_3 \cdot N_6 - N_4 \cdot N_5) + N_4 \cdot N_6)^2)} - R = 0.00000$$

Definitions.

$$R - \frac{N_7 \cdot (N_3 \cdot N_6 - N_4 \cdot N_5 + N_4 \cdot N_6) \cdot [N_6 \cdot (N_3 + N_4) \cdot (N_1 + N_2) - N_2 \cdot N_7 \cdot (N_3 \cdot N_6 - N_4 \cdot N_5 + N_4 \cdot N_6)]}{(N_1 + N_2) \cdot [N_6^2 \cdot (N_3 + N_4)^2 + N_7^2 \cdot (N_3 \cdot N_6 - N_4 \cdot N_5 + N_4 \cdot N_6)^2]} = 0$$

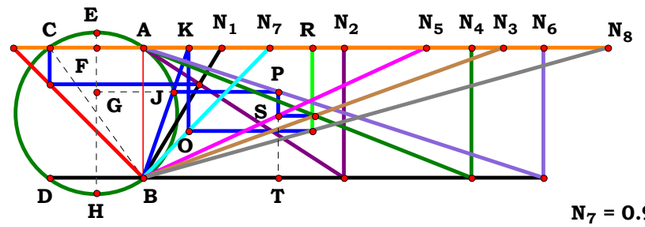
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$ $N_6 - \frac{N_u}{F} = 0$ $N_7 - \frac{N_u}{G} = 0$

$$R - \frac{N_u \cdot (C \cdot E - C \cdot F + D \cdot E) \cdot [G \cdot E \cdot (C + D) \cdot (A + B) - A \cdot N_u \cdot [C \cdot (E - F) + D \cdot E]]}{(A + B) \cdot [G^2 \cdot E^2 \cdot (C + D)^2 + N_u^2 \cdot (C \cdot E - C \cdot F + D \cdot E)^2]} = 0$$

$N_1 - \frac{T}{j} = 0$ $N_2 - \frac{U}{k} = 0$ $N_3 - \frac{V}{l} = 0$ $N_4 - \frac{W}{m} = 0$ $N_5 - \frac{X}{n} = 0$ $N_6 - \frac{Y}{o} = 0$ $N_7 - \frac{Z}{p} = 0$

$$R - \frac{Z \cdot (V \cdot Y \cdot m \cdot n - W \cdot X \cdot l \cdot o + W \cdot Y \cdot l \cdot n) \cdot [Y \cdot n \cdot (V \cdot m + W \cdot l) \cdot (T \cdot k \cdot p - U \cdot Z \cdot j + U \cdot j \cdot p) + U \cdot W \cdot X \cdot Z \cdot j \cdot l \cdot o]}{(T \cdot k + U \cdot j) \cdot [Y^2 \cdot n^2 \cdot (Z^2 + p^2) \cdot (V \cdot m + W \cdot l)^2 - 2 \cdot Y \cdot W \cdot X \cdot Z^2 \cdot l \cdot n \cdot o \cdot (V \cdot m + W \cdot l) + W^2 \cdot X^2 \cdot Z^2 \cdot l^2 \cdot o^2]} = 0$$

4RST6AB4R5



$N_7 = 0.96858$
$N_8 = 3.56437$
$R = 1.29958$

Descriptions.

$N_1 = 0.59793$ $N_3 = 2.76258$ $N_5 = 2.16962$
$N_2 = 1.53745$ $N_4 = 2.51808$ $N_6 = 3.07039$

$$AC := \frac{N_2}{N_1 + N_2} \qquad EH := \sqrt{AB^2 + AC^2}$$

$$AF := \frac{AC}{2} \qquad EF := \frac{EH - AB}{2} \qquad ST := \frac{N_4}{N_3 + N_4} \qquad BT := N_5 \cdot ST \qquad PT := \frac{N_6 - BT}{N_6}$$

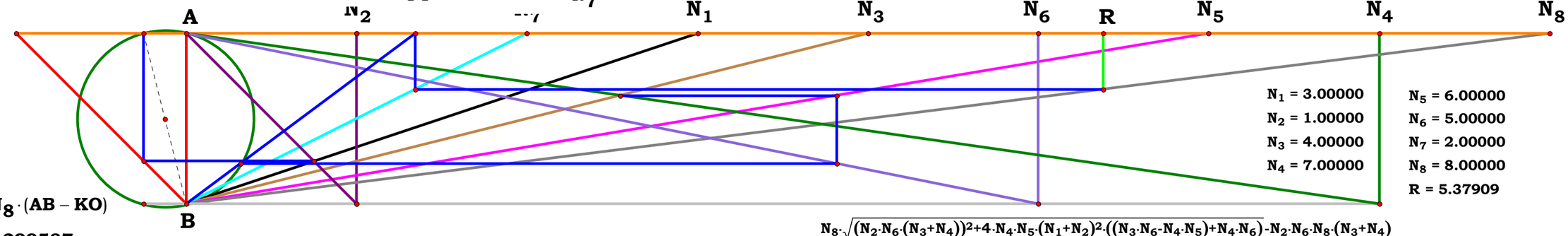
$$GH := PT + EF \qquad GJ := \sqrt{GH \cdot (EH - GH)} \qquad AK := \frac{(GJ - AF)}{PT} \qquad KO := \frac{N_7 - AK}{N_7}$$

Unit. $AB := 1$ **Given.** $N_1 := .59793$ $N_2 := 1.53745$ $N_3 := 2.76258$ $N_4 := 2.51808$
$N_5 := 2.16962$ $N_6 := 3.07039$ $N_7 := .96858$ $N_8 := 3.56437$

$$N_u := 3 \quad A := \frac{N_u}{N_1} \quad B := \frac{N_u}{N_2} \quad C := \frac{N_u}{N_3} \quad D := \frac{N_u}{N_4} \quad E := \frac{N_u}{N_5} \quad F := \frac{N_u}{N_6} \quad G := \frac{N_u}{N_7} \quad H := \frac{N_u}{N_8}$$

$S := 20$ $T := 19$ $U := 18$ $V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$$h := \frac{S}{N_1} \quad j := \frac{T}{N_2} \quad k := \frac{Y}{N_3} \quad l := \frac{V}{N_4} \quad m := \frac{W}{N_5} \quad n := \frac{X}{N_6} \quad o := \frac{Y}{N_7} \quad p := \frac{Z}{N_8}$$



$N_1 = 3.00000$ $N_5 = 6.00000$
$N_2 = 1.00000$ $N_6 = 5.00000$
$N_3 = 4.00000$ $N_7 = 2.00000$
$N_4 = 7.00000$ $N_8 = 8.00000$
$R = 5.37909$

$$R := N_8 \cdot (AB - KO)$$

$R = 1.299587$

$$\frac{N_8 \cdot \sqrt{(N_2 \cdot N_6 \cdot (N_3 + N_4))^2 + 4 \cdot N_4 \cdot N_5 \cdot (N_1 + N_2)^2 \cdot ((N_3 \cdot N_6 - N_4 \cdot N_5) + N_4 \cdot N_6)} - N_2 \cdot N_6 \cdot N_8 \cdot (N_3 + N_4)}{2 \cdot N_7 \cdot (N_1 + N_2) \cdot ((N_3 \cdot N_6 - N_4 \cdot N_5) + N_4 \cdot N_6)} - R = 0.00000$$

Definitions.

$$R - \frac{N_8 \cdot \sqrt{N_2^2 \cdot N_6^2 \cdot (N_3 + N_4)^2 + 4 \cdot N_4 \cdot N_5 \cdot (N_1 + N_2)^2 \cdot (N_3 \cdot N_6 - N_4 \cdot N_5 + N_4 \cdot N_6)} - N_2 \cdot N_6 \cdot N_8 \cdot (N_3 + N_4)}{2 \cdot (N_1 + N_2) \cdot N_7 \cdot (N_3 \cdot N_6 - N_4 \cdot N_5 + N_4 \cdot N_6)} = 0$$

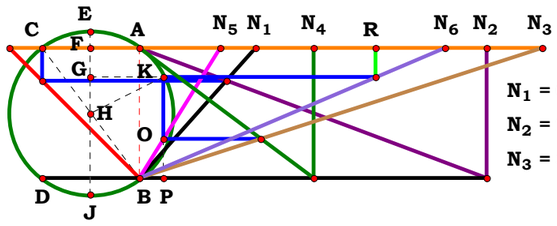
$$N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0 \quad N_4 - \frac{N_u}{D} = 0 \quad N_5 - \frac{N_u}{E} = 0 \quad N_6 - \frac{N_u}{F} = 0 \quad N_7 - \frac{N_u}{G} = 0 \quad N_8 - \frac{N_u}{H} = 0$$

$$R - \frac{G \cdot \left[\sqrt{A^2 \cdot E^2 \cdot (C + D)^2 + 4 \cdot C \cdot F \cdot (A + B)^2 \cdot (C \cdot E - C \cdot F + D \cdot E)} - A \cdot E \cdot (C + D)\right]}{2 \cdot H \cdot (A + B) \cdot [C \cdot (E - F) + D \cdot E]} = 0$$

$$N_1 - \frac{S}{h} = 0 \quad N_2 - \frac{T}{j} = 0 \quad N_3 - \frac{U}{k} = 0 \quad N_4 - \frac{V}{l} = 0 \quad N_5 - \frac{W}{m} = 0 \quad N_6 - \frac{X}{n} = 0 \quad N_7 - \frac{Y}{o} = 0 \quad N_8 - \frac{Z}{p} = 0$$

$$R - \frac{Z \cdot o \cdot \left[\sqrt{4 \cdot V \cdot W \cdot k \cdot n \cdot (T \cdot h + S \cdot j)^2 \cdot (U \cdot X \cdot l \cdot m - V \cdot W \cdot k \cdot n + V \cdot X \cdot k \cdot m) + T^2 \cdot X^2 \cdot h^2 \cdot m^2 \cdot (U \cdot l + V \cdot k)^2} - T \cdot X \cdot h \cdot m \cdot (U \cdot l + V \cdot k)\right]}{2 \cdot Y \cdot p \cdot (T \cdot h + S \cdot j) \cdot (U \cdot X \cdot l \cdot m - V \cdot W \cdot k \cdot n + V \cdot X \cdot k \cdot m)} = 0$$

4RST6AB4R6



$N_1 = 0.88850$ $N_4 = 1.33641$
$N_2 = 2.66100$ $N_5 = 0.61989$
$N_3 = 3.09190$ $N_6 = 2.34396$
$R = 1.81285$

Unit. $AB := 1$ Given. $N_1 := .88850$ $N_2 := 2.66100$ $N_3 := 3.09190$

$N_4 := 1.33641$ $N_5 := .61989$ $N_6 := 2.34396$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $F := \frac{N_u}{N_6}$

Descriptions.

$U := 18$ $V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $k := \frac{U}{N_1}$ $l := \frac{V}{N_2}$ $m := \frac{W}{N_3}$ $n := \frac{X}{N_4}$ $o := \frac{Y}{N_5}$ $p := \frac{Z}{N_6}$

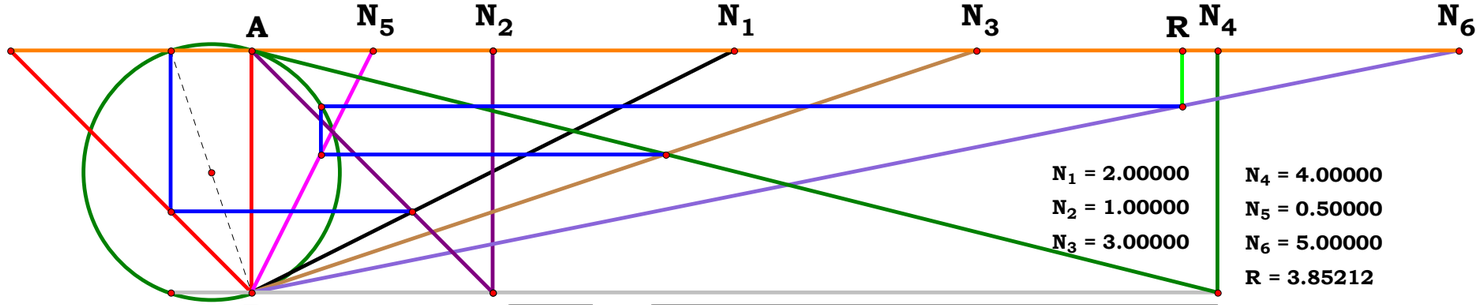
$AC := \frac{N_2}{N_1 + N_2}$ $EJ := \sqrt{AB^2 + AC^2}$ $AF := \frac{AC}{2}$

$EF := \frac{EJ - AB}{2}$ $HK := \frac{EJ}{2}$ $OP := \frac{N_4}{N_3 + N_4}$

$BP := N_5 \cdot OP$ $GK := AF + BP$

$GH := \sqrt{HK^2 - GK^2}$ $KP := GH + HK - EF$

$R := N_6 \cdot KP$ $R = 1.812854$



$N_1 = 2.00000$ $N_4 = 4.00000$
$N_2 = 1.00000$ $N_5 = 0.50000$
$N_3 = 3.00000$ $N_6 = 5.00000$
$R = 3.85212$

B $\frac{N_6 \cdot (N_3+N_4) \cdot \sqrt{(N_1+N_2)} + N_6 \cdot \sqrt{(N_1+N_2) \cdot (N_3+N_4)^2 - 4 \cdot N_4^2 \cdot N_5^2 \cdot (N_1+N_2) - 4 \cdot N_2 \cdot N_4 \cdot N_5 \cdot (N_3+N_4)}}{2 \cdot (N_3+N_4) \cdot \sqrt{(N_1+N_2)}} - R = 0.00000$

Definitions.

$$R - \frac{N_6 \cdot \left[\sqrt{N_1 + N_2} \cdot (N_3 + N_4) + \sqrt{(N_1 + N_2) \cdot (N_3 + N_4)^2 - 4 \cdot N_4^2 \cdot N_5^2 \cdot (N_1 + N_2) - 4 \cdot N_2 \cdot N_4 \cdot N_5 \cdot (N_3 + N_4)}\right]}{2 \cdot (N_3 + N_4) \cdot \sqrt{N_1 + N_2}} = 0$$

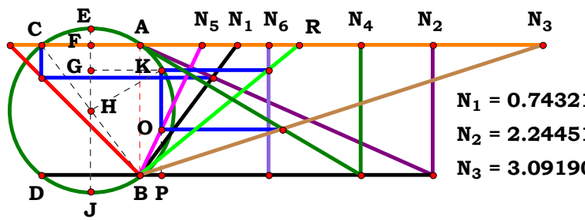
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$ $N_6 - \frac{N_u}{F} = 0$

$$R - \frac{N_u \cdot \left[\sqrt{N_u \cdot \left[E \cdot (C + D) \cdot \left[E \cdot (C + D) \cdot (A + B) - 4 \cdot A \cdot C \cdot N_u\right] - 4 \cdot C^2 \cdot N_u^2 \cdot (A + B)\right]} + \sqrt{\left[N_u \cdot (A + B)\right]} \cdot E \cdot (C + D)\right]}{2 \cdot \sqrt{\left[N_u \cdot (A + B)\right]} \cdot F \cdot (C + D) \cdot E} = 0$$

$N_1 - \frac{U}{k} = 0$ $N_2 - \frac{V}{l} = 0$ $N_3 - \frac{W}{m} = 0$ $N_4 - \frac{X}{n} = 0$ $N_5 - \frac{Y}{o} = 0$ $N_6 - \frac{Z}{p} = 0$

$$R - \frac{Z \cdot \left[\sqrt{o^2 \cdot (W \cdot n + X \cdot m)^2 \cdot (U \cdot l + V \cdot k) - 4 \cdot Y^2 \cdot X^2 \cdot m^2 \cdot (U \cdot l + V \cdot k) - 4 \cdot Y \cdot V \cdot X \cdot k \cdot m \cdot o \cdot (W \cdot n + X \cdot m)} + \sqrt{U \cdot l + V \cdot k} \cdot o \cdot (W \cdot n + X \cdot m)\right]}{2 \cdot p \cdot \sqrt{U \cdot l + V \cdot k} \cdot (W \cdot n + X \cdot m) \cdot o} = 0$$

4RST6AB4R7



$N_1 = 0.74321$ $N_2 = 2.24451$ $N_3 = 3.09190$ $N_4 = 1.69478$ $N_5 = 0.47460$ $N_6 = 0.98795$ $R = 1.22109$

Unit. $AB := 1$ Given. $N_1 := .74321$ $N_2 := 2.24451$ $N_3 := 3.09190$ $N_4 := 1.69478$ $N_5 := .47460$ $N_6 := .98795$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $F := \frac{N_u}{N_6}$

Descriptions.

$U := 18$ $V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $k := \frac{U}{N_1}$ $l := \frac{V}{N_2}$ $m := \frac{W}{N_3}$ $n := \frac{X}{N_4}$ $o := \frac{Y}{N_5}$ $p := \frac{Z}{N_6}$

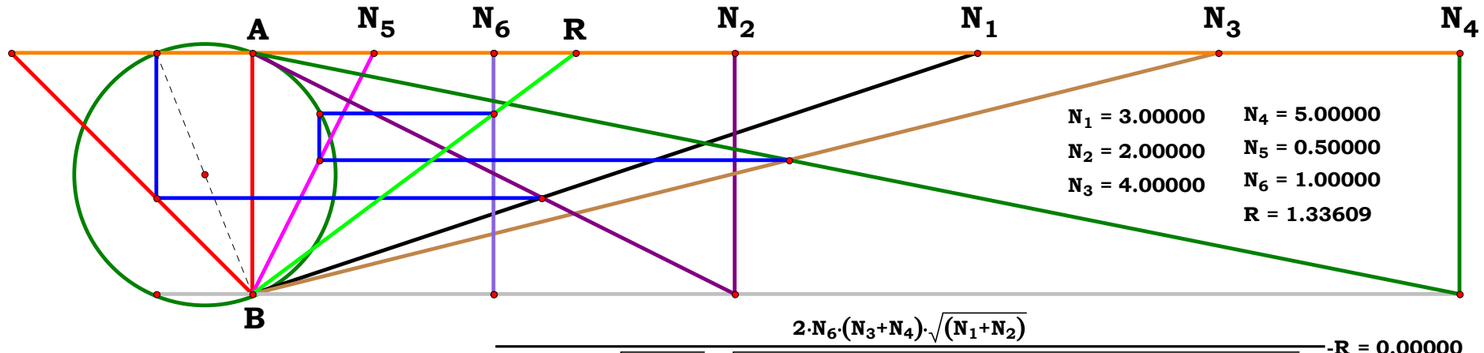
$AC := \frac{N_2}{N_1 + N_2}$ $EJ := \sqrt{AB^2 + AC^2}$ $AF := \frac{AC}{2}$

$EF := \frac{EJ - AB}{2}$ $HK := \frac{EJ}{2}$ $OP := \frac{N_4}{N_3 + N_4}$

$BP := N_5 \cdot OP$ $GK := AF + BP$

$GH := \sqrt{HK^2 - GK^2}$ $KP := GH + HK - EF$

$R := \frac{N_6}{KP}$ $R = 1.221089$



$N_1 = 3.00000$ $N_2 = 2.00000$ $N_3 = 4.00000$ $N_4 = 5.00000$ $N_5 = 0.50000$ $N_6 = 1.00000$ $R = 1.33609$

$$\frac{2 \cdot N_6 \cdot (N_3+N_4) \cdot \sqrt{(N_1+N_2)}}{(N_3+N_4) \cdot \sqrt{(N_1+N_2)} + \sqrt{(N_1+N_2) \cdot (N_3+N_4)^2 - 4 \cdot N_4^2 \cdot N_5^2 \cdot (N_1+N_2) - 4 \cdot N_2 \cdot N_4 \cdot N_5 \cdot (N_3+N_4)}} - R = 0.00000$$

Definitions.

$$R - \frac{2 \cdot N_6 \cdot \sqrt{N_1 + N_2} \cdot (N_3 + N_4)}{\sqrt{N_1 + N_2} \cdot (N_3 + N_4) + \sqrt{(N_1 + N_2) \cdot (N_3 + N_4)^2 - 4 \cdot N_4^2 \cdot N_5^2 \cdot (N_1 + N_2) - 4 \cdot N_2 \cdot N_4 \cdot N_5 \cdot (N_3 + N_4)}} = 0$$

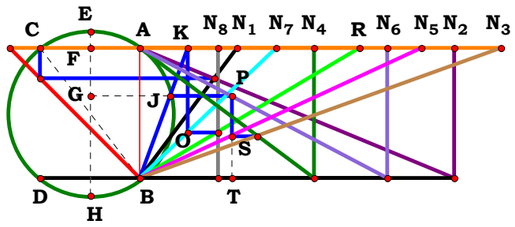
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$ $N_6 - \frac{N_u}{F} = 0$

$$R - \frac{2 \cdot N_u \cdot \sqrt{N_u \cdot (A+B)} \cdot (C+D) \cdot E}{F \cdot \left[\sqrt{N_u \cdot \left[E \cdot (C+D) \cdot \left[E \cdot (A+B) \cdot (C+D) - 4 \cdot A \cdot C \cdot N_u\right] - 4 \cdot C^2 \cdot N_u^2 \cdot (A+B)\right]} + \sqrt{\left[N_u \cdot (A+B)\right] \cdot E \cdot (C+D)}\right]} = 0$$

$N_1 - \frac{U}{k} = 0$ $N_2 - \frac{V}{l} = 0$ $N_3 - \frac{W}{m} = 0$ $N_4 - \frac{X}{n} = 0$ $N_5 - \frac{Y}{o} = 0$ $N_6 - \frac{Z}{p} = 0$

$$R - \frac{2 \cdot Z \cdot \sqrt{U \cdot l + V \cdot k} \cdot (W \cdot n + X \cdot m) \cdot o}{p \cdot \left[\sqrt{o^2 \cdot (W \cdot n + X \cdot m)^2 \cdot (U \cdot l + V \cdot k) - 4 \cdot Y^2 \cdot X^2 \cdot m^2 \cdot (U \cdot l + V \cdot k) - 4 \cdot Y \cdot V \cdot X \cdot k \cdot m \cdot o \cdot (W \cdot n + X \cdot m)} + \sqrt{U \cdot l + V \cdot k} \cdot o \cdot (W \cdot n + X \cdot m)\right]} = 0$$

4RST6AB4R8



$N_1 = 0.74321$ $N_3 = 2.77227$ $N_5 = 2.15993$
$N_2 = 2.41649$ $N_4 = 1.33641$ $N_6 = 1.89841$

$N_7 = 1.04606$
$N_8 = 0.59870$
$R = 1.68944$

Unit. $AB := 1$ **Given.** $N_1 := .74321$ $N_2 := 2.41649$ $N_3 := 2.77227$ $N_4 := 1.33641$
$N_5 := 2.15993$ $N_6 := 1.89841$ $N_7 := 1.04606$ $N_8 := .59870$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $F := \frac{N_u}{N_6}$ $G := \frac{N_u}{N_7}$ $H := \frac{N_u}{N_8}$

$S := 20$ $T := 19$ $U := 18$ $V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$h := \frac{S}{N_1}$ $j := \frac{T}{N_2}$ $k := \frac{Y}{N_3}$ $l := \frac{V}{N_4}$ $m := \frac{W}{N_5}$ $n := \frac{X}{N_6}$ $o := \frac{Y}{N_7}$ $p := \frac{Z}{N_8}$

Descriptions.

$AC := \frac{N_2}{N_1 + N_2}$ $EH := \sqrt{AB^2 + AC^2}$

$AF := \frac{AC}{2}$ $EF := \frac{EH - AB}{2}$ $ST := \frac{N_4}{N_3 + N_4}$ $BT := N_5 \cdot ST$ $PT := \frac{N_6 - BT}{N_6}$

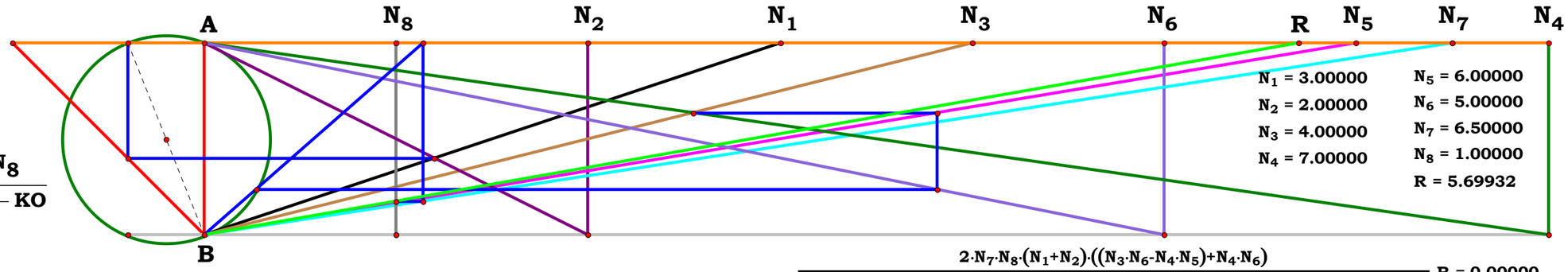
$GH := PT + EF$

$GJ := \sqrt{GH \cdot (EH - GH)}$

$AK := \frac{GJ - AF}{PT}$

$KO := \frac{N_7 - AK}{N_7}$ $R := \frac{N_8}{AB - KO}$

$R = 1.689429$



$N_1 = 3.00000$ $N_5 = 6.00000$
$N_2 = 2.00000$ $N_6 = 5.00000$
$N_3 = 4.00000$ $N_7 = 6.50000$
$N_4 = 7.00000$ $N_8 = 1.00000$
$R = 5.69932$

$$\frac{2 \cdot N_7 \cdot N_8 \cdot (N_1+N_2) \cdot ((N_3 \cdot N_6 - N_4 \cdot N_5) + N_4 \cdot N_6)}{\sqrt{4 \cdot N_4 \cdot N_5 \cdot (N_1+N_2)^2 \cdot ((N_3 \cdot N_6 - N_4 \cdot N_5) + N_4 \cdot N_6) + (N_2 \cdot N_6 \cdot (N_3+N_4))^2} - N_2 \cdot N_6 \cdot (N_3+N_4)} - R = 0.00000$$

Definitions.

$$R - \frac{2 \cdot N_7 \cdot N_8 \cdot (N_1 + N_2) \cdot (N_3 \cdot N_6 - N_4 \cdot N_5 + N_4 \cdot N_6)}{\sqrt{4 \cdot N_4 \cdot N_5 \cdot (N_1 + N_2)^2 \cdot (N_3 \cdot N_6 - N_4 \cdot N_5 + N_4 \cdot N_6) + N_2^2 \cdot N_6^2 \cdot (N_3 + N_4)^2} - N_2 \cdot N_6 \cdot (N_3 + N_4)} = 0$$

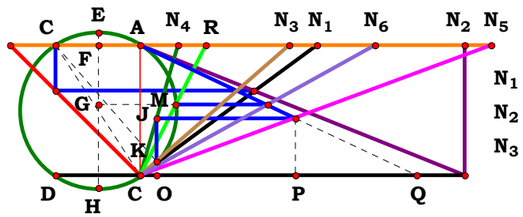
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$ $N_6 - \frac{N_u}{F} = 0$ $N_7 - \frac{N_u}{G} = 0$ $N_8 - \frac{N_u}{H} = 0$

$$R - \frac{2 \cdot N_u^2 \cdot (A + B) \cdot [C \cdot (E - F) + D \cdot E]}{G \cdot H \cdot \left[\sqrt{4 \cdot C \cdot F \cdot (A + B)^2 \cdot [C \cdot (E - F) + D \cdot E] + A^2 \cdot E^2 \cdot (C + D)^2} - A \cdot E \cdot (C + D)\right]} = 0$$

$N_1 - \frac{S}{h} = 0$ $N_2 - \frac{T}{j} = 0$ $N_3 - \frac{U}{k} = 0$ $N_4 - \frac{V}{l} = 0$ $N_5 - \frac{W}{m} = 0$ $N_6 - \frac{X}{n} = 0$ $N_7 - \frac{Y}{o} = 0$ $N_8 - \frac{Z}{p} = 0$

$$R - \frac{2 \cdot Y \cdot Z \cdot (T \cdot h + S \cdot j) \cdot (U \cdot X \cdot l \cdot m - V \cdot W \cdot k \cdot n + V \cdot X \cdot k \cdot m)}{o \cdot p \cdot \left[\sqrt{4 \cdot V \cdot W \cdot k \cdot n \cdot (T \cdot h + S \cdot j)^2 \cdot (U \cdot X \cdot l \cdot m - V \cdot W \cdot k \cdot n + V \cdot X \cdot k \cdot m) + T^2 \cdot X^2 \cdot h^2 \cdot m^2 \cdot (U \cdot l + V \cdot k)^2} - T \cdot X \cdot h \cdot m \cdot (U \cdot l + V \cdot k)\right]} = 0$$

4RST6AB4R9



$N_1 = 1.35342$
$N_2 = 2.48665$
$N_3 = 1.14506$
$N_4 = 0.29034$
$N_5 = 2.69265$
$N_6 = 1.80156$
$R = 0.49974$

Unit. $AB := 1$ **Given.** $N_1 := 1.35342$ $N_2 := 2.48665$ $N_3 := 1.14506$ $N_4 := .29034$ $N_5 := 2.69265$ $N_6 := 1.80156$

Descriptions.

$$AC := \frac{N_2}{N_1 + N_2} \qquad EH := \sqrt{AB^2 + AC^2}$$

$$AF := \frac{AC}{2} \qquad EF := \frac{EH - AB}{2}$$

$$BN_3 := \sqrt{N_3^2 + AB^2} \qquad CN_3 := N_3 + AC$$

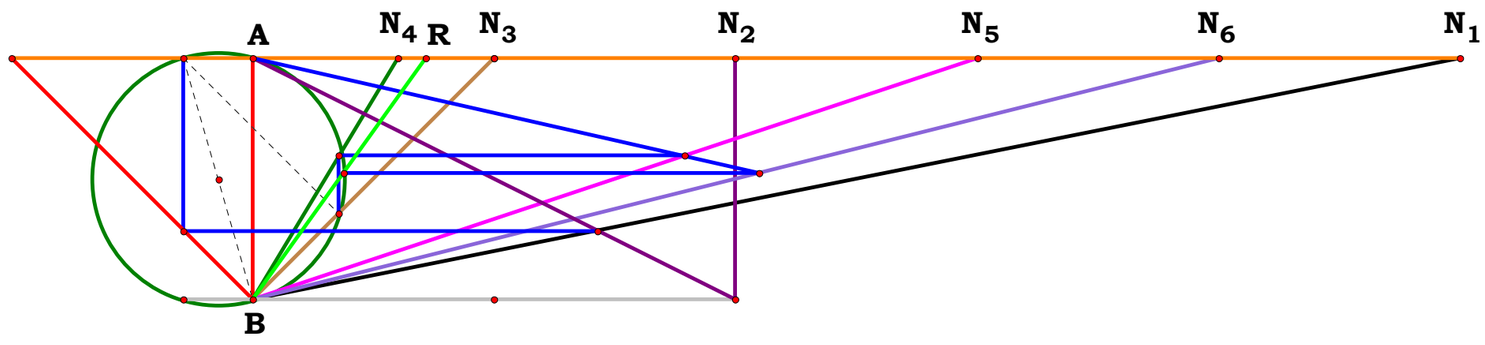
$$KN_3 := \frac{N_3 \cdot CN_3}{BN_3} \qquad BO := \frac{N_3 \cdot (BN_3 - KN_3)}{BN_3}$$

$$JO := \frac{BO}{N_4} \qquad BP := N_5 \cdot JO$$

$$BQ := \frac{BP \cdot AB}{AB - JO} \qquad FG := \frac{N_6}{BQ + N_6}$$

$$EG := FG + EF \qquad GM := \sqrt{EG \cdot (EH - EG)}$$

$$R := \frac{GM - AF}{AB - FG} \qquad R = 0.499729$$



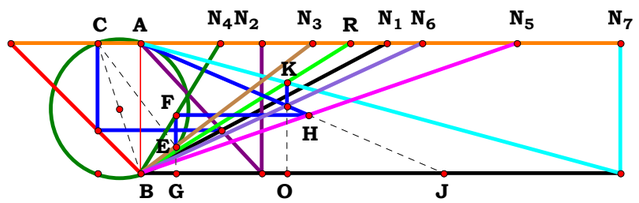
$N_1 = 5.00000$
$N_2 = 2.00000$
$N_3 = 1.00000$
$N_4 = 0.60000$
$N_5 = 3.00000$
$N_6 = 4.00000$
$R = 0.71800$
$AB = 1.00000$
$AC = 0.28571$
$EH = 1.04002$
$AF = 0.14286$
$EF = 0.02001$
$BN_3 = 1.41421$
$CN_3 = 1.28571$
$KN_3 = 0.90914$
$BO = 0.35714$
$JO = 0.59524$
$BP = 1.78571$
$BQ = 4.41176$
$FG = 0.47552$
$EG = 0.49553$
$GM = 0.51943$
$R - \frac{GM - AF}{AB - FG} = 0.00000$

Definitions.

$$R - \frac{\left(N_1 + N_2\right)^2 \cdot \sqrt{\begin{matrix} N_2^2 \cdot N_6^2 \cdot \left[N_3^2 \cdot \left[N_2 + N_4 \cdot \left(N_1 + N_2\right)\right] - \left(N_3 - N_4\right) \cdot \left(N_1 + N_2\right)\right]^2 + N_2^2 \cdot N_3^2 \cdot N_5^2 \cdot \left(N_1 + N_2 - N_2 \cdot N_3\right)^2 \ \ldots \\ + \ 2 \cdot N_3 \cdot N_5 \cdot N_6 \cdot \left(2 \cdot N_1^2 + 4 \cdot N_1 \cdot N_2 + 3 \cdot N_2^2\right) \cdot \left(N_1 + N_2 - N_2 \cdot N_3\right) \cdot \left[N_3^2 \cdot \left[N_2 + N_4 \cdot \left(N_1 + N_2\right)\right] - \left(N_3 - N_4\right) \cdot \left(N_1 + N_2\right)\right] \end{matrix}} \ \ldots}{2 \cdot N_3 \cdot N_5 \cdot \left(N_1 + N_2 - N_2 \cdot N_3\right) \cdot \left(N_1 + N_2\right)^3} = 0$$

$$+ \ -\sqrt{\left(N_1 + N_2\right)^4} \cdot N_2 \cdot \left[\left[N_3 \cdot \left(N_5 - N_6\right) + N_4 \cdot N_6 \cdot \left(N_3^2 + 1\right)\right] \cdot \left(N_1 + N_2\right) - \left(N_5 - N_6\right) \cdot N_2 \cdot N_3^2\right]$$

4RST6AB4R10



$N_1 = 1.88613$ $N_3 = 1.31940$ $N_5 = 2.88636$ $N_7 = 3.68060$

$N_2 = 0.92724$ $N_4 = 0.60998$ $N_6 = 2.15993$ $R = 1.60871$

Unit. $AB := 1$ Given. $N_1 := 1.88613$ $N_2 := .92724$ $N_3 := 1.31940$ $N_4 := .60998$

$N_5 := 2.88636$ $N_6 := 2.15993$ $N_7 := 3.68060$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $F := \frac{N_u}{N_6}$ $G := \frac{N_u}{N_7}$

$T := 19$ $U := 18$ $V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$j := \frac{T}{N_1}$ $k := \frac{U}{N_2}$ $l := \frac{V}{N_3}$ $m := \frac{W}{N_4}$ $n := \frac{X}{N_5}$ $o := \frac{Y}{N_6}$ $p := \frac{Z}{N_7}$

Descriptions.

$AC := \frac{N_2}{N_1 + N_2}$ $BN_3 := \sqrt{AB^2 + N_3^2}$

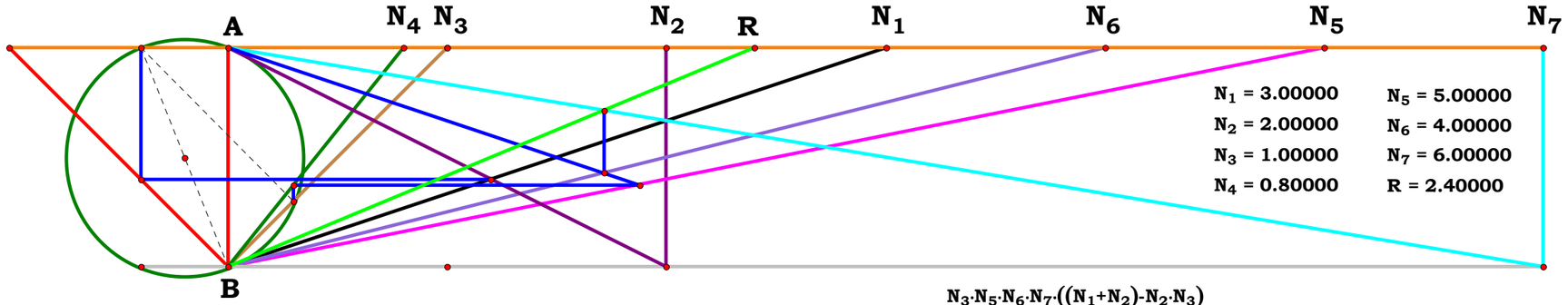
$CN_3 := N_3 + AC$ $EN_3 := \frac{N_3 \cdot CN_3}{BN_3}$

$BG := \frac{N_3 \cdot (BN_3 - EN_3)}{BN_3}$ $FG := \frac{BG}{N_4}$

$FH := N_5 \cdot FG$ $BJ := \frac{FH}{(AB - FG)}$

$BO := \frac{N_6 \cdot BJ}{N_6 + BJ}$ $KO := \frac{N_7 - BO}{N_7}$

$R := \frac{BO}{KO}$ $R = 1.608696$



$N_1 = 3.00000$ $N_5 = 5.00000$

$N_2 = 2.00000$ $N_6 = 4.00000$

$N_3 = 1.00000$ $N_7 = 6.00000$

$N_4 = 0.80000$ $R = 2.40000$

$$\frac{N_3 \cdot N_5 \cdot N_6 \cdot N_7 \cdot ((N_1 + N_2) - N_2 \cdot N_3)}{N_4 \cdot N_6 \cdot N_7 \cdot (N_3^2 + 1) \cdot (N_1 + N_2) - N_3 \cdot ((N_5 \cdot N_6 - N_5 \cdot N_7) + N_6 \cdot N_7) \cdot ((N_1 + N_2) - N_2 \cdot N_3)} - R = 0.00000$$

Definitions.

$$R - \frac{N_3 \cdot N_5 \cdot N_6 \cdot N_7 \cdot (N_1 + N_2 - N_2 \cdot N_3)}{N_4 \cdot N_6 \cdot N_7 \cdot (N_3^2 + 1) \cdot (N_1 + N_2) - N_3 \cdot (N_5 \cdot N_6 - N_5 \cdot N_7 + N_6 \cdot N_7) \cdot (N_1 + N_2 - N_2 \cdot N_3)} = 0$$

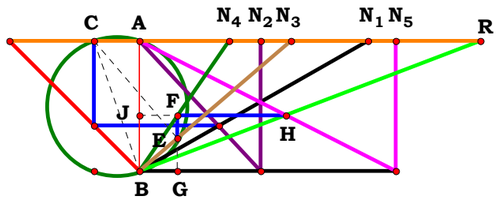
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$ $N_6 - \frac{N_u}{F} = 0$ $N_7 - \frac{N_u}{G} = 0$

$$R - \frac{D \cdot N_u \cdot (A \cdot C + B \cdot C - A \cdot N_u)}{\left[E \cdot (C^2 - D \cdot C + N_u^2) + C \cdot D \cdot F - C \cdot D \cdot G\right] \cdot (A + B) + A \cdot D \cdot N_u \cdot (E - F + G)} = 0$$

$N_1 - \frac{T}{j} = 0$ $N_2 - \frac{U}{k} = 0$ $N_3 - \frac{V}{l} = 0$ $N_4 - \frac{W}{m} = 0$ $N_5 - \frac{X}{n} = 0$ $N_6 - \frac{Y}{o} = 0$ $N_7 - \frac{Z}{p} = 0$

$$R - \frac{V \cdot X \cdot Y \cdot Z \cdot m \cdot (T \cdot k \cdot l - U \cdot V \cdot j + U \cdot j \cdot l)}{W \cdot Y \cdot Z \cdot n \cdot (V^2 + l^2) \cdot (T \cdot k + U \cdot j) + V \cdot m \cdot (X \cdot Y \cdot p - X \cdot Z \cdot o + Y \cdot Z \cdot n) \cdot (U \cdot V \cdot j - T \cdot k \cdot l - U \cdot j \cdot l)} = 0$$

4RST6AB4R11



$N_1 = 1.75053$
$N_2 = 0.92724$
$N_3 = 1.16443$
$N_4 = 0.68746$
$N_5 = 1.96621$
$R = 2.61627$

Unit. $AB := 1$ **Given.** $N_1 := 1.75053$ $N_2 := .92724$ $N_3 := 1.16443$

$N_4 := .68746$ $N_5 := 1.96621$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$

$V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$l := \frac{V}{N_1}$ $m := \frac{W}{N_2}$ $n := \frac{X}{N_3}$ $o := \frac{Y}{N_4}$ $p := \frac{Z}{N_5}$

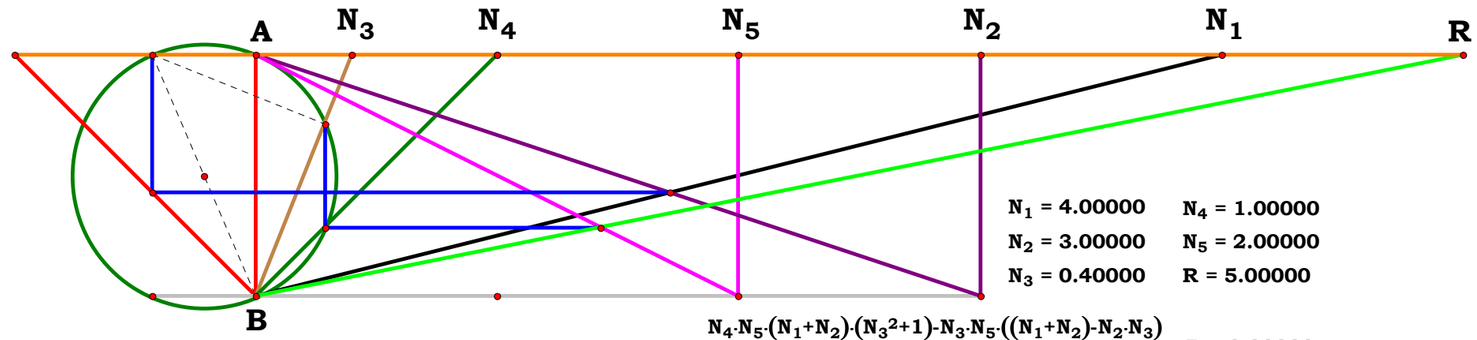
Descriptions.

$AC := \frac{N_2}{N_1 + N_2}$ $BN_3 := \sqrt{N_3^2 + AB^2}$ $CN_3 := N_3 + AC$

$EN_3 := \frac{N_3 \cdot CN_3}{BN_3}$ $BG := \frac{N_3 \cdot (BN_3 - EN_3)}{BN_3}$

$FG := \frac{BG}{N_4}$ $HJ := N_5 \cdot (AB - FG)$

$R := \frac{HJ}{FG}$ $R = 2.616258$



$N_1 = 4.00000$ $N_4 = 1.00000$
$N_2 = 3.00000$ $N_5 = 2.00000$
$N_3 = 0.40000$ $R = 5.00000$

$\frac{N_4 \cdot N_5 \cdot (N_1+N_2) \cdot (N_3^2+1) - N_3 \cdot N_5 \cdot ((N_1+N_2) - N_2 \cdot N_3)}{N_3 \cdot ((N_1+N_2) - N_2 \cdot N_3)} - R = 0.00000$

Definitions.

$$R - \frac{N_4 \cdot N_5 \cdot (N_3^2 + 1) \cdot (N_1 + N_2) - N_3 \cdot N_5 \cdot (N_1 + N_2 - N_2 \cdot N_3)}{N_3 \cdot (N_1 + N_2 - N_2 \cdot N_3)} = 0$$

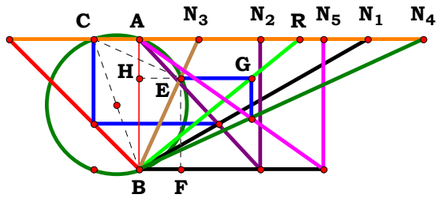
$$N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0 \quad N_4 - \frac{N_u}{D} = 0 \quad N_5 - \frac{N_u}{E} = 0$$

$$R - \frac{N_u \cdot \left[C^2 \cdot (A + B) + N_u^2 \cdot (A + B) - C \cdot D \cdot (A + B) + A \cdot D \cdot N_u\right]}{D \cdot E \cdot (A \cdot C + B \cdot C - A \cdot N_u)} = 0$$

$$N_1 - \frac{V}{l} = 0 \quad N_2 - \frac{W}{m} = 0 \quad N_3 - \frac{X}{n} = 0 \quad N_4 - \frac{Y}{o} = 0 \quad N_5 - \frac{Z}{p} = 0$$

$$R - \frac{Z \cdot \left[Y \cdot (X^2 + n^2) \cdot (V \cdot m + W \cdot l) + X \cdot o \cdot (W \cdot X \cdot l - V \cdot m \cdot n - W \cdot l \cdot n)\right]}{X \cdot o \cdot p \cdot (V \cdot m \cdot n - W \cdot X \cdot l + W \cdot l \cdot n)} = 0$$

4RST6AB4R12



$N_1 = 1.75053$
$N_2 = 0.92724$
$N_3 = 0.45737$
$N_4 = 2.17907$
$N_5 = 1.41412$
$R = 1.23212$

Unit. $AB := 1$ Given. $N_1 := 1.75053$ $N_2 := .92724$ $N_3 := .45737$

$N_4 := 2.17907$ $N_5 := 1.41412$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$

$V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$l := \frac{V}{N_1}$ $m := \frac{W}{N_2}$ $n := \frac{X}{N_3}$ $o := \frac{Y}{N_4}$ $p := \frac{Z}{N_5}$

Descriptions.

$AC := \frac{N_2}{N_1 + N_2}$ $BN_3 := \sqrt{N_3^2 + AB^2}$

$CN_3 := N_3 + AC$ $EN_3 := \frac{N_3 \cdot CN_3}{BN_3}$

$EF := \frac{(BN_3 - EN_3)}{BN_3}$ $HG := \frac{N_5 \cdot N_4}{N_5 + N_4}$

$R := \frac{HG}{EF}$ $R = 1.232118$

Definitions.

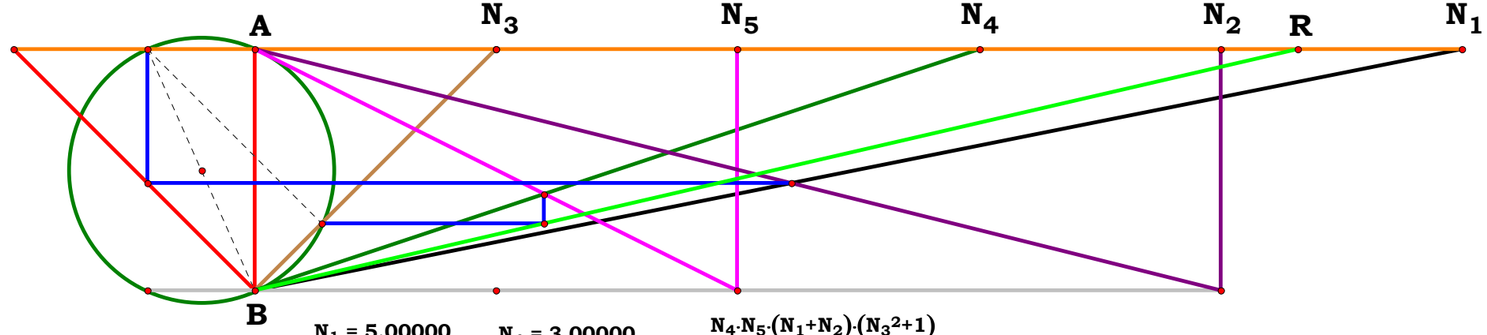
$$R - \frac{N_4 \cdot N_5 \cdot (N_1 + N_2) \cdot (N_3^2 + 1)}{(N_4 + N_5) \cdot (N_1 + N_2 - N_2 \cdot N_3)} = 0$$

$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$

$$R - \frac{N_u \cdot (C^2 + N_u^2) \cdot (A + B)}{C \cdot (D + E) \cdot [C \cdot (A + B) - A \cdot N_u]} = 0$$

$N_1 - \frac{V}{l} = 0$ $N_2 - \frac{W}{m} = 0$ $N_3 - \frac{X}{n} = 0$ $N_4 - \frac{Y}{o} = 0$ $N_5 - \frac{Z}{p} = 0$

$$R - \frac{Y \cdot Z \cdot (V \cdot m + W \cdot l) \cdot (X^2 + n^2)}{n \cdot (Y \cdot p + Z \cdot o) \cdot (V \cdot m \cdot n - W \cdot X \cdot l + W \cdot l \cdot n)} = 0$$

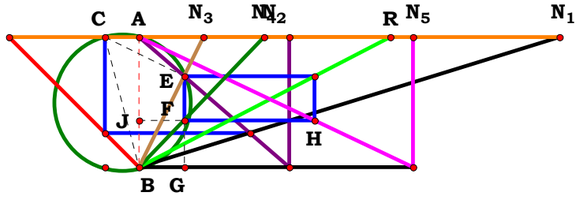


$N_1 = 5.00000$ $N_4 = 3.00000$ $\frac{N_4 \cdot N_5 \cdot (N_1 + N_2) \cdot (N_3^2 + 1)}{(N_4 + N_5) \cdot ((N_1 + N_2) - N_2 \cdot N_3)} - R = 0.00000$

$N_2 = 4.00000$ $N_5 = 2.00000$

$N_3 = 1.00000$ $R = 4.32000$

4RST6AB4R13



$N_1 = 3.22277$
$N_2 = 1.15002$
$N_3 = 0.49611$
$N_4 = 0.95866$
$N_5 = 2.10182$
$R = 1.92444$

Unit. $AB := 1$ **Given.** $N_1 := 3.22277$ $N_2 := 1.15002$ $N_3 := .49611$ $N_4 := .958666$ $N_5 := 2.10182$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$

$V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$l := \frac{V}{N_1}$ $m := \frac{W}{N_2}$ $n := \frac{X}{N_3}$ $o := \frac{Y}{N_4}$ $p := \frac{Z}{N_5}$

Descriptions.

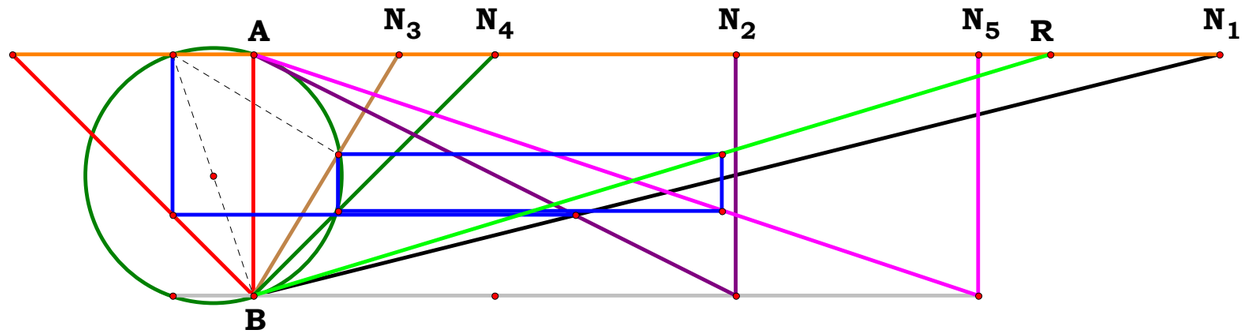
$AC := \frac{N_2}{N_1 + N_2}$ $BN_3 := \sqrt{N_3^2 + AB^2}$

$CN_3 := N_3 + AC$ $EN_3 := \frac{N_3 \cdot CN_3}{BN_3}$

$BG := \frac{N_3 \cdot (BN_3 - EN_3)}{BN_3}$ $FG := \frac{BG}{N_4}$

$JH := N_5 \cdot (AB - FG)$ $EG := \frac{BN_3 - EN_3}{BN_3}$

$R := \frac{JH}{EG}$ $R = 1.924444$



$N_1 = 4.00000$ $N_4 = 1.00000$
$N_2 = 2.00000$ $N_5 = 3.00000$
$N_3 = 0.60000$ $R = 3.30000$

$$\frac{N_2 \cdot N_3^2 \cdot N_5 + N_5 \cdot ((N_3^2 \cdot N_4 - N_3) + N_4) \cdot (N_1 + N_2)}{N_4 \cdot ((N_1 + N_2) - N_2 \cdot N_3)} - R = 0.00000$$

Definitions.

$$R - \frac{N_2 \cdot N_3^2 \cdot N_5 + N_5 \cdot (N_3^2 \cdot N_4 - N_3 + N_4) \cdot (N_1 + N_2)}{N_4 \cdot (N_1 + N_2 - N_2 \cdot N_3)} = 0$$

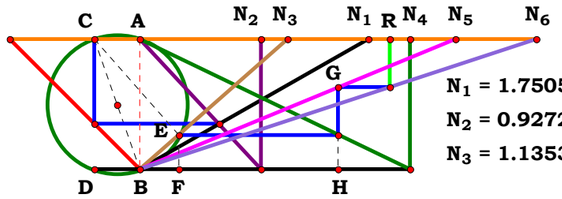
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$

$$R - \frac{N_u \cdot \left[\left(C^2 + N_u^2 \right) \cdot (A + B) - D \cdot \left[C \cdot (A + B) - A \cdot N_u \right] \right]}{C \cdot E \cdot \left[C \cdot (A + B) - A \cdot N_u \right]} = 0$$

$N_1 - \frac{V}{l} = 0$ $N_2 - \frac{W}{m} = 0$ $N_3 - \frac{X}{n} = 0$ $N_4 - \frac{Y}{o} = 0$ $N_5 - \frac{Z}{p} = 0$

$$R - \frac{Z \cdot \left[Y \cdot \left(X^2 + n^2 \right) \cdot (V \cdot m + W \cdot l) + X \cdot o \cdot (W \cdot X \cdot l - V \cdot m \cdot n - W \cdot l \cdot n) \right]}{Y \cdot n \cdot p \cdot (V \cdot m \cdot n - W \cdot X \cdot l + W \cdot l \cdot n)} = 0$$

4RST6AB4R14



$N_1 = 1.75053$
$N_2 = 0.92724$
$N_3 = 1.13537$
$N_4 = 2.07253$
$N_5 = 2.42145$
$N_6 = 3.04134$
$R = 1.91299$

Descriptions.

$AC := \frac{N_2}{N_1 + N_2}$ $BN_3 := \sqrt{N_3^2 + AB^2}$

$CN_3 := N_3 + AC$ $EN_3 := \frac{N_3 \cdot CN_3}{BN_3}$

$EF := \frac{BN_3 - EN_3}{BN_3}$

$BH := N_4 \cdot (AB - EF)$ $GH := \frac{BH}{N_5}$

$R := N_6 \cdot GH$ $R = 1.912992$

Definitions.

$$R - \frac{N_3 \cdot N_4 \cdot N_6 \cdot \left(N_2 + N_1 \cdot N_3 + N_2 \cdot N_3\right)}{N_5 \cdot \left(N_1 + N_2\right) \cdot \left(N_3^2 + 1\right)} = 0$$

$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$ $N_6 - \frac{N_u}{F} = 0$

$$R - \frac{E \cdot N_u^2 \cdot \left[A \cdot C + N_u \cdot (A + B)\right]}{D \cdot F \cdot \left(C^2 + N_u^2\right) \cdot (A + B)} = 0$$

$N_1 - \frac{U}{k} = 0$ $N_2 - \frac{V}{l} = 0$ $N_3 - \frac{W}{m} = 0$ $N_4 - \frac{X}{n} = 0$ $N_5 - \frac{Y}{o} = 0$ $N_6 - \frac{Z}{p} = 0$

$$R - \frac{W \cdot X \cdot Z \cdot o \cdot (U \cdot W \cdot l + V \cdot W \cdot k + V \cdot k \cdot m)}{Y \cdot n \cdot p \cdot (U \cdot l + V \cdot k) \cdot \left(W^2 + m^2\right)} = 0$$

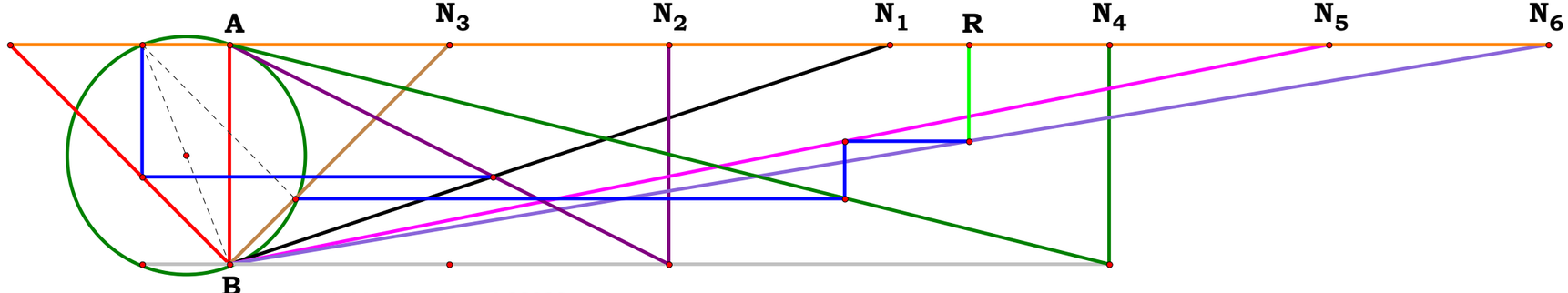
Unit. $AB := 1$ **Given.** $N_1 := 1.75053$ $N_2 := .92724$ $N_3 := 1.13537$

$N_4 := 2.07253$ $N_5 := 2.42145$ $N_6 := 3.04134$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $F := \frac{N_u}{N_6}$

$U := 18$ $V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$k := \frac{U}{N_1}$ $l := \frac{V}{N_2}$ $m := \frac{W}{N_3}$ $n := \frac{X}{N_4}$ $o := \frac{Y}{N_5}$ $p := \frac{Z}{N_6}$



$N_1 = 3.00000$ $N_4 = 4.00000$

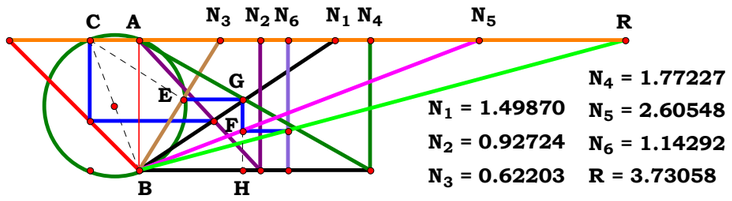
$N_2 = 2.00000$ $N_5 = 5.00000$

$N_3 = 1.00000$ $N_6 = 6.00000$

$R = 3.36000$

$$\frac{N_3 \cdot N_4 \cdot N_6 \cdot (N_2 + N_1 \cdot N_3 + N_2 \cdot N_3)}{N_5 \cdot (N_1 + N_2) \cdot (N_3^2 + 1)} - R = 0.00000$$

4RST6AB4R15



$N_4 = 1.77227$
$N_1 = 1.49870$ $N_5 = 2.60548$
$N_2 = 0.92724$ $N_6 = 1.14292$
$N_3 = 0.62203$ $R = 3.73058$

Unit. $AB := 1$ **Given.** $N_1 := 1.49870$ $N_2 := .92724$ $N_3 := .62203$

$N_4 := 1.77227$ $N_5 := 2.60548$ $N_6 := 1.14292$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $F := \frac{N_u}{N_6}$

$U := 18$ $V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$k := \frac{U}{N_1}$ $l := \frac{V}{N_2}$ $m := \frac{W}{N_3}$ $n := \frac{X}{N_4}$ $o := \frac{Y}{N_5}$ $p := \frac{Z}{N_6}$

Descriptions.

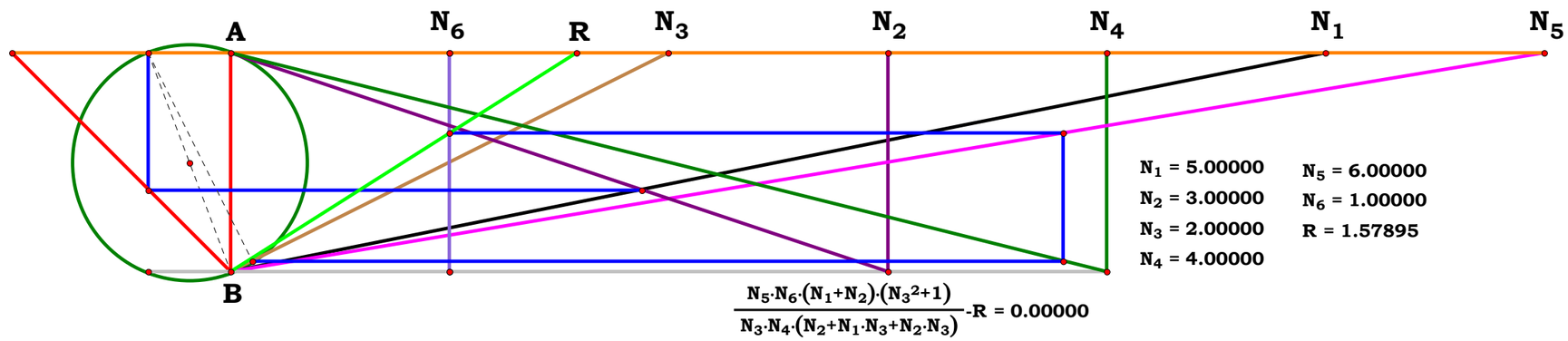
$AC := \frac{N_2}{N_1 + N_2}$ $BN_3 := \sqrt{N_3^2 + AB^2}$

$CN_3 := N_3 + AC$ $EN_3 := \frac{N_3 \cdot CN_3}{BN_3}$

$GH := \frac{BN_3 - EN_3}{BN_3}$

$BH := N_4 \cdot (AB - GH)$

$FH := \frac{BH}{N_5}$ $R := \frac{N_6}{FH}$ $R = 3.73055$



$N_1 = 5.00000$ $N_5 = 6.00000$
$N_2 = 3.00000$ $N_6 = 1.00000$
$N_3 = 2.00000$ $R = 1.57895$
$N_4 = 4.00000$

$\frac{N_5 \cdot N_6 \cdot (N_1 + N_2) \cdot (N_3^2 + 1)}{N_3 \cdot N_4 \cdot (N_2 + N_1 \cdot N_3 + N_2 \cdot N_3)} - R = 0.00000$

Definitions.

$$R - \frac{N_5 \cdot N_6 \cdot (N_1 + N_2) \cdot (N_3^2 + 1)}{N_3 \cdot N_4 \cdot (N_2 + N_1 \cdot N_3 + N_2 \cdot N_3)} = 0$$

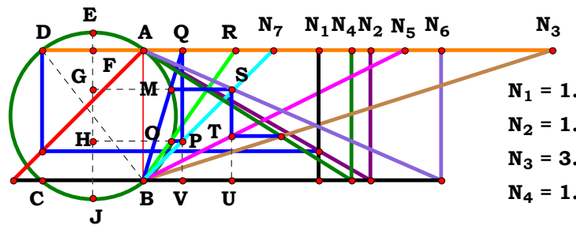
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$ $N_6 - \frac{N_u}{F} = 0$

$$R - \frac{D \cdot (C^2 + N_u^2) \cdot (A + B)}{E \cdot F \cdot [A \cdot C + N_u \cdot (A + B)]} = 0$$

$N_1 - \frac{U}{k} = 0$ $N_2 - \frac{V}{l} = 0$ $N_3 - \frac{W}{m} = 0$ $N_4 - \frac{X}{n} = 0$ $N_5 - \frac{Y}{o} = 0$ $N_6 - \frac{Z}{p} = 0$

$$R - \frac{Y \cdot Z \cdot n \cdot (U \cdot l + V \cdot k) \cdot (W^2 + m^2)}{W \cdot X \cdot o \cdot p \cdot (U \cdot W \cdot l + V \cdot W \cdot k + V \cdot k \cdot m)} = 0$$

4RST6AB5R1



N_1 = 1.34373 N_5 = 2.00496
N_2 = 1.74085 N_6 = 2.28585
N_3 = 3.14033 N_7 = 0.99764
N_4 = 1.59793 R = 0.70882

Unit. $AB := 1$ **Given.** $N_1 := 1.34373$ $N_2 := 1.74085$ $N_3 := 3.14033$
$N_4 := 1.59793$ $N_5 := 2.00496$ $N_6 := 2.28585$ $N_7 := .99764$

Descriptions.

$$AC := \frac{N_1}{N_2} \qquad EJ := \sqrt{AB^2 + AC^2}$$

$$AF := \frac{AC}{2} \qquad EF := \frac{EJ - AB}{2}$$

$$TU := \frac{N_4}{N_3 + N_4}$$

$$BU := N_5 \cdot TU$$

$$SU := \frac{N_6 - BU}{N_6}$$

$$GJ := SU + EF$$

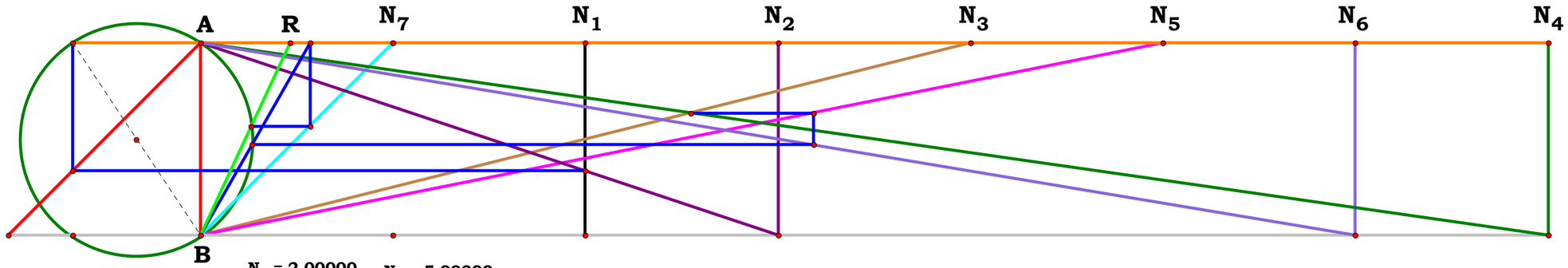
$$GK := \sqrt{GJ \cdot (EJ - GJ)}$$

$$AQ := \frac{GK - AF}{SU}$$

$$PV := \frac{AQ}{N_7} \qquad HJ := PV + EF$$

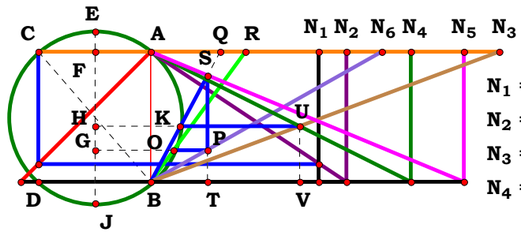
$$HO := \sqrt{HJ \cdot (EJ - HJ)} \qquad R := \frac{HO - AF}{PV}$$

$R = 0.708821$



N_1 = 2.00000 N_5 = 5.00000 AB = 1.00000 EF = 0.10093 GJ = 0.57062 HJ = 0.66901
N_2 = 3.00000 N_6 = 6.00000 AC = 0.66667 TU = 0.63636 GK = 0.60016 HO = 0.59706
N_3 = 4.00000 N_7 = 1.00000 EJ = 1.20185 BU = 3.18182 AQ = 0.56808 $R - \frac{HO - AF}{PV}$ = 0.00000
N_4 = 7.00000 R = 0.46423 AF = 0.33333 SU = 0.46970 PV = 0.56808

4RST6AB5R2



N_1 = 1.28562 N_5 = 2.40207
N_2 = 1.49870 N_6 = 1.77250
N_3 = 2.67541 R = 0.72925
N_4 = 1.99504

Unit. $AB := 1$ Given. $N_1 := 1.28562$ $N_2 := 1.49870$ $N_3 := 2.67541$
$N_4 := 1.99504$ $N_5 := 2.40207$ $N_6 := 1.77250$

Descriptions.

$$AC := \frac{N_1}{N_2} \qquad EJ := \sqrt{AB^2 + AC^2}$$

$$AF := \frac{AC}{2} \qquad EF := \frac{EJ - AB}{2}$$

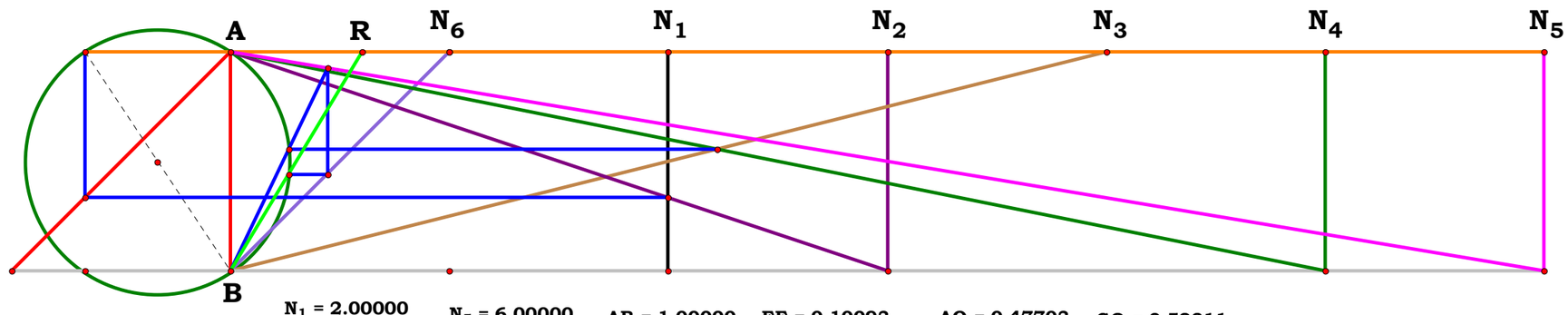
$$UV := \frac{N_4}{N_3 + N_4} \qquad HJ := UV + EF$$

$$HK := \sqrt{HJ \cdot (EJ - HJ)} \qquad AQ := \frac{HK - AF}{UV}$$

$$BT := \frac{AQ \cdot N_5}{AQ + N_5} \qquad PT := \frac{BT}{N_6}$$

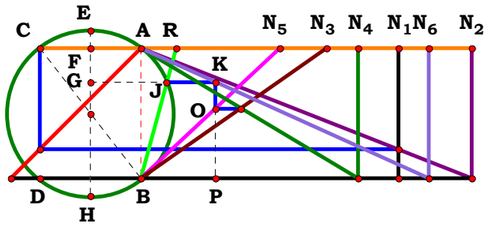
$$GJ := PT + EF \qquad GO := \sqrt{GJ \cdot (EJ - GJ)}$$

$$R := \frac{GO - AF}{PT} \qquad R = 0.729244$$



N_1 = 2.00000 N_5 = 6.00000 AB = 1.00000 EF = 0.10093 AQ = 0.47703 GO = 0.59811
N_2 = 3.00000 N_6 = 1.00000 AC = 0.66667 UV = 0.55556 BT = 0.44190 $R-\frac{GO-AF}{PT}$ = 0.00000
N_3 = 4.00000 R = 0.59918 EJ = 1.20185 HJ = 0.65648 PT = 0.44190
N_4 = 5.00000 AF = 0.33333 HK = 0.59835 GJ = 0.54282

4RST6AB5R3



$N_1 = 1.97331$
$N_2 = 2.53508$
$N_3 = 1.42595$
$N_4 = 1.66573$
$N_5 = 1.06544$
$N_6 = 2.20836$
$R = 0.26644$

Unit. $AB := 1$ **Given.** $N_1 := 1.97331$ $N_2 := 2.53508$ $N_3 := 1.42595$

$N_4 := 1.66573$ $N_5 := 1.06544$ $N_6 := 2.20836$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $F := \frac{N_u}{N_6}$

$U := 18$ $V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$k := \frac{U}{N_1}$ $l := \frac{V}{N_2}$ $m := \frac{W}{N_3}$ $n := \frac{X}{N_4}$ $o := \frac{Y}{N_5}$ $p := \frac{Z}{N_6}$

Descriptions.

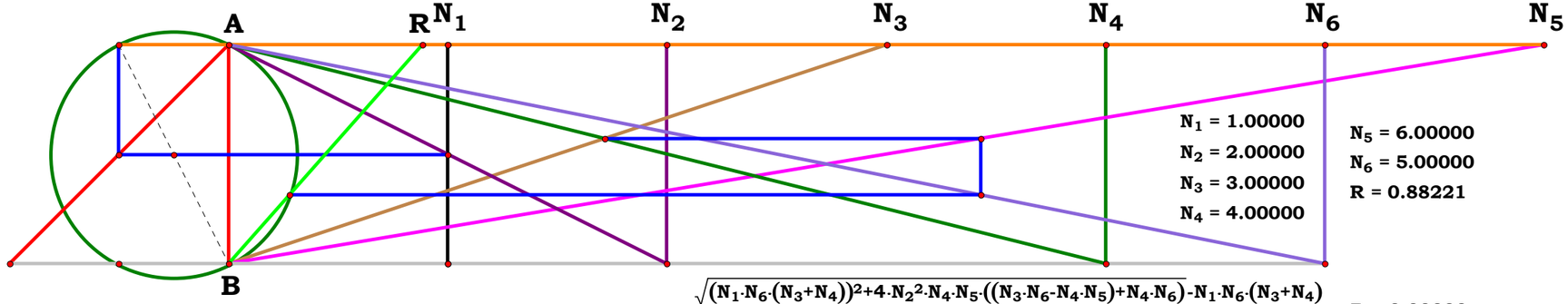
$AC := \frac{N_1}{N_2}$ $EH := \sqrt{AB^2 + AC^2}$ $EF := \frac{EH - AB}{2}$

$AF := \frac{AC}{2}$ $OP := \frac{N_4}{N_3 + N_4}$ $BP := N_5 \cdot OP$

$KP := AB - \frac{BP}{N_6}$ $GH := KP + EF$

$GJ := \sqrt{GH \cdot (EH - GH)}$

$R := \frac{GJ - AF}{KP}$ $R = 0.266443$



$N_1 = 1.00000$
$N_2 = 2.00000$
$N_3 = 3.00000$
$N_4 = 4.00000$
$N_5 = 6.00000$
$N_6 = 5.00000$
$R = 0.88221$

$\frac{\sqrt{(N_1 \cdot N_6 \cdot (N_3+N_4))^2+4 \cdot N_2^2 \cdot N_4 \cdot N_5 \cdot ((N_3 \cdot N_6 - N_4 \cdot N_5)+N_4 \cdot N_6)} - N_1 \cdot N_6 \cdot (N_3+N_4)}{2 \cdot N_2 \cdot ((N_3 \cdot N_6 - N_4 \cdot N_5)+N_4 \cdot N_6)} - R = 0.00000$

Definitions.

$$R - \frac{\sqrt{N_1^2 \cdot N_6^2 \cdot (N_3 + N_4)^2 + 4 \cdot N_2^2 \cdot N_4 \cdot N_5 \cdot (N_3 \cdot N_6 - N_4 \cdot N_5 + N_4 \cdot N_6)} - N_1 \cdot N_6 \cdot (N_3 + N_4)}{2 \cdot N_2 \cdot (N_3 \cdot N_6 - N_4 \cdot N_5 + N_4 \cdot N_6)} = 0$$

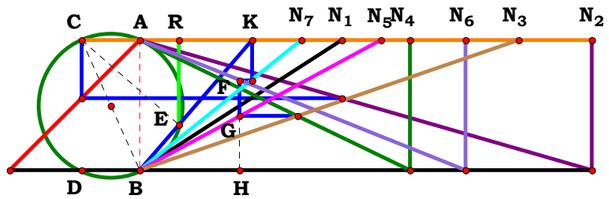
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$ $N_6 - \frac{N_u}{F} = 0$

$$R - \frac{\sqrt{4 \cdot A^2 \cdot C \cdot F \cdot (C \cdot E - C \cdot F + D \cdot E) + B^2 \cdot E^2 \cdot (C + D)^2} - B \cdot E \cdot (C + D)}{2 \cdot A \cdot [C \cdot (E - F) + D \cdot E]} = 0$$

$N_1 - \frac{U}{k} = 0$ $N_2 - \frac{V}{l} = 0$ $N_3 - \frac{W}{m} = 0$ $N_4 - \frac{X}{n} = 0$ $N_5 - \frac{Y}{o} = 0$ $N_6 - \frac{Z}{p} = 0$

$$R - \frac{\sqrt{4 \cdot Y \cdot V^2 \cdot X \cdot Z \cdot k^2 \cdot m \cdot o \cdot p \cdot (W \cdot n + X \cdot m) - 4 \cdot V^2 \cdot X^2 \cdot k^2 \cdot m^2 \cdot p^2 \cdot Y^2 + U^2 \cdot Z^2 \cdot l^2 \cdot o^2 \cdot (W \cdot n + X \cdot m)^2} - U \cdot Z \cdot l \cdot o \cdot (W \cdot n + X \cdot m)}{2 \cdot V \cdot k \cdot (W \cdot Z \cdot n \cdot o - X \cdot Y \cdot m \cdot p + X \cdot Z \cdot m \cdot o)} = 0$$

4RST6AB5R4



$N_1 = 1.54713$ $N_3 = 2.90787$ $N_5 = 1.84998$ $N_7 = 1.23978$
$N_2 = 3.46492$ $N_4 = 2.07253$ $N_6 = 2.49893$ $R = 0.30489$

Descriptions.

$$AC := \frac{N_1}{N_2} \quad GH := \frac{N_4}{N_3 + N_4} \quad BH := N_5 \cdot GH$$

$$FH := \frac{N_6 - BH}{N_6}$$

$$AK := N_7 \cdot FH$$

$$BK := \sqrt{AK^2 + AB^2}$$

$$CK := AK + AC$$

$$EK := \frac{AK \cdot CK}{BK}$$

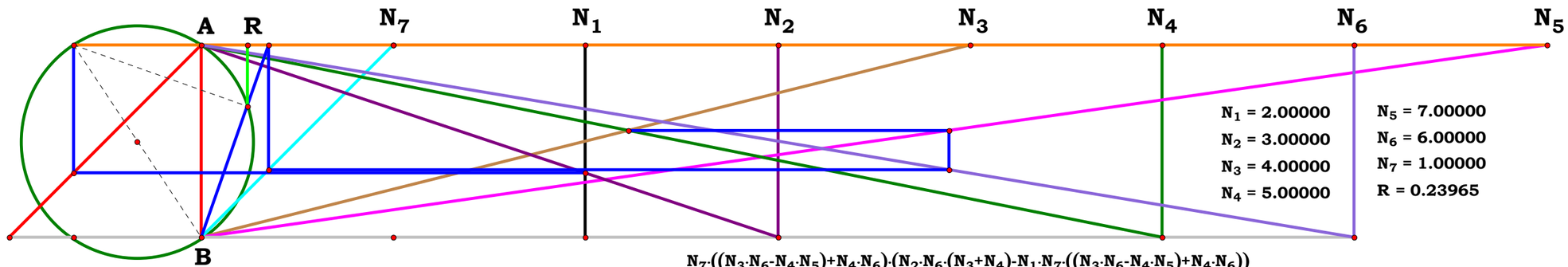
$$R := AK \cdot \frac{(BK - EK)}{BK} \qquad R = 0.30489$$

Unit. $AB := 1$ **Given.** $N_1 := 1.54713$ $N_2 := 3.46492$ $N_3 := 2.90787$ $N_4 := 2.07253$
$N_5 := 1.84998$ $N_6 := 2.49893$ $N_7 := 1.23978$

$$N_u := 3 \quad A := \frac{N_u}{N_1} \quad B := \frac{N_u}{N_2} \quad C := \frac{N_u}{N_3} \quad D := \frac{N_u}{N_4} \quad E := \frac{N_u}{N_5} \quad F := \frac{N_u}{N_6} \quad G := \frac{N_u}{N_7}$$

$T := 19$ $U := 18$ $V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$$j := \frac{T}{N_1} \quad k := \frac{U}{N_2} \quad l := \frac{V}{N_3} \quad m := \frac{W}{N_4} \quad n := \frac{X}{N_5} \quad o := \frac{Y}{N_6} \quad p := \frac{Z}{N_7}$$



$N_1 = 2.00000$ $N_5 = 7.00000$
$N_2 = 3.00000$ $N_6 = 6.00000$
$N_3 = 4.00000$ $N_7 = 1.00000$
$N_4 = 5.00000$ $R = 0.23965$

$$\frac{N_7 \cdot ((N_3 \cdot N_6 - N_4 \cdot N_5) + N_4 \cdot N_6) \cdot (N_2 \cdot N_6 \cdot (N_3 + N_4) - N_1 \cdot N_7 \cdot ((N_3 \cdot N_6 - N_4 \cdot N_5) + N_4 \cdot N_6))}{N_2 \cdot (N_6^2 \cdot (N_3 + N_4)^2 + N_7^2 \cdot ((N_3 \cdot N_6 - N_4 \cdot N_5) + N_4 \cdot N_6)^2)} - R = 0.00000$$

Definitions.

$$R - \frac{N_7 \cdot (N_3 \cdot N_6 - N_4 \cdot N_5 + N_4 \cdot N_6) \cdot [N_2 \cdot N_6 \cdot (N_3 + N_4) - N_1 \cdot N_7 \cdot (N_3 \cdot N_6 - N_4 \cdot N_5 + N_4 \cdot N_6)]}{N_2 \cdot [N_6^2 \cdot (N_3 + N_4)^2 + N_7^2 \cdot (N_3 \cdot N_6 - N_4 \cdot N_5 + N_4 \cdot N_6)^2]} = 0$$

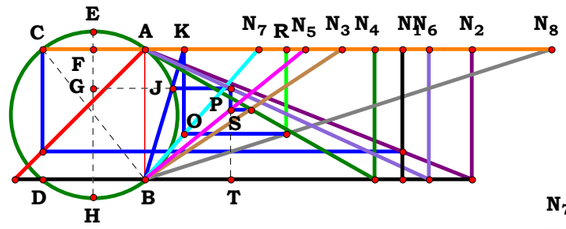
$$N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0 \quad N_4 - \frac{N_u}{D} = 0 \quad N_5 - \frac{N_u}{E} = 0 \quad N_6 - \frac{N_u}{F} = 0 \quad N_7 - \frac{N_u}{G} = 0$$

$$R - \frac{N_u \cdot [C \cdot (E - F) + D \cdot E] \cdot [A \cdot E \cdot G \cdot (C + D) - B \cdot N_u \cdot (C \cdot E - C \cdot F + D \cdot E)]}{N_u^2 \cdot A \cdot [C \cdot (E - F) + D \cdot E]^2 + A \cdot E^2 \cdot G^2 \cdot (C + D)^2} = 0$$

$$N_1 - \frac{T}{j} = 0 \quad N_2 - \frac{U}{k} = 0 \quad N_3 - \frac{V}{l} = 0 \quad N_4 - \frac{W}{m} = 0 \quad N_5 - \frac{X}{n} = 0 \quad N_6 - \frac{Y}{o} = 0 \quad N_7 - \frac{Z}{p} = 0$$

$$R - \frac{Z \cdot (V \cdot Y \cdot m \cdot n - W \cdot X \cdot l \cdot o + W \cdot Y \cdot l \cdot n) \cdot [T \cdot W \cdot X \cdot Z \cdot k \cdot l \cdot o - Y \cdot n \cdot (T \cdot Z \cdot k - U \cdot j \cdot p) \cdot (V \cdot m + W \cdot l)]}{U \cdot j \cdot [Y^2 \cdot n^2 \cdot (Z^2 + p^2) \cdot (V \cdot m + W \cdot l)^2 - 2 \cdot Y \cdot W \cdot X \cdot Z^2 \cdot l \cdot n \cdot o \cdot (V \cdot m + W \cdot l) + W^2 \cdot X^2 \cdot Z^2 \cdot l^2 \cdot o^2]} = 0$$

4RST6AB5R5



$N_1 = 1.97331$ $N_3 = 1.51312$ $N_5 = 1.23009$ $N_7 = 0.87172$

$N_2 = 2.50603$ $N_4 = 1.76258$ $N_6 = 2.17930$ $N_8 = 3.11709$ $R = 1.08701$

Unit. $AB := 1$ **Given.** $N_1 := 1.97331$ $N_2 := 2.50603$ $N_3 := 1.51312$ $N_4 := 1.76258$

$N_5 := 1.23009$ $N_6 := 2.17930$ $N_7 := .87172$ $N_8 := 3.11709$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $F := \frac{N_u}{N_6}$ $G := \frac{N_u}{N_7}$ $H := \frac{N_u}{N_8}$

$S := 20$ $T := 19$ $U := 18$ $V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$h := \frac{S}{N_1}$ $j := \frac{T}{N_2}$ $k := \frac{Y}{N_3}$ $l := \frac{V}{N_4}$ $m := \frac{W}{N_5}$ $n := \frac{X}{N_6}$ $o := \frac{Y}{N_7}$ $p := \frac{Z}{N_8}$

Descriptions.

$AC := \frac{N_1}{N_2}$ $EH := \sqrt{AB^2 + AC^2}$ $AF := \frac{AC}{2}$ $EF := \frac{EH - AB}{2}$

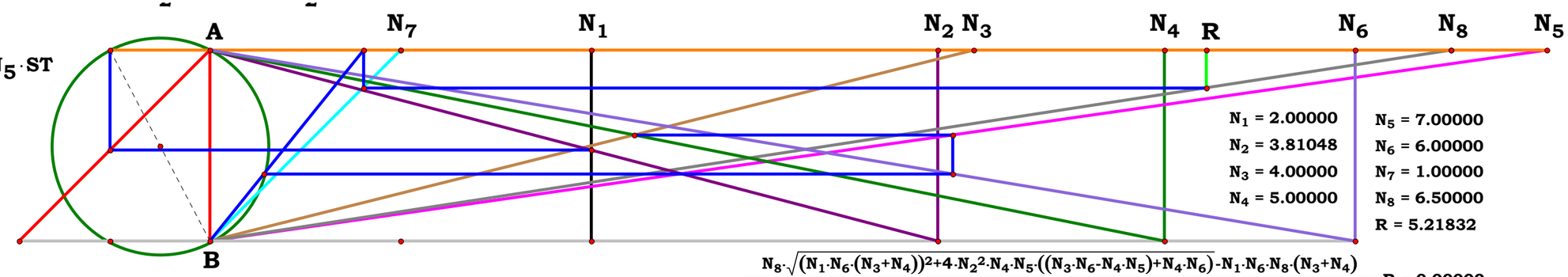
$ST := \frac{N_4}{N_3 + N_4}$ $BT := N_5 \cdot ST$

$PT := \frac{N_6 - BT}{N_6}$

$GH := PT + EF$

$GJ := \sqrt{GH \cdot (EH - GH)}$

$AK := \frac{(GJ - AF)}{PT}$ $KO := \frac{N_7 - AK}{N_7}$ $R := N_8 \cdot (AB - KO)$ $R = 1.087008$



$N_1 = 2.00000$ $N_5 = 7.00000$

$N_2 = 3.81048$ $N_6 = 6.00000$

$N_3 = 4.00000$ $N_7 = 1.00000$

$N_4 = 5.00000$ $N_8 = 6.50000$

$R = 5.21832$

$$\frac{N_8 \cdot \sqrt{(N_1 \cdot N_6 \cdot (N_3+N_4))^2+4 \cdot N_2^2 \cdot N_4 \cdot N_5 \cdot ((N_3 \cdot N_6 - N_4 \cdot N_5)+N_4 \cdot N_6)} - N_1 \cdot N_6 \cdot N_8 \cdot (N_3+N_4)}{2 \cdot N_2 \cdot N_7 \cdot ((N_3 \cdot N_6 - N_4 \cdot N_5)+N_4 \cdot N_6)} - R = 0.00000$$

Definitions.

$$R - \frac{N_8 \cdot \left[\sqrt{N_1^2 \cdot N_6^2 \cdot (N_3+N_4)^2 + 4 \cdot N_2^2 \cdot N_4 \cdot N_5 \cdot (N_3 \cdot N_6 - N_4 \cdot N_5 + N_4 \cdot N_6)} - N_1 \cdot N_6 \cdot (N_3+N_4)\right]}{2 \cdot N_2 \cdot N_7 \cdot (N_3 \cdot N_6 - N_4 \cdot N_5 + N_4 \cdot N_6)} = 0$$

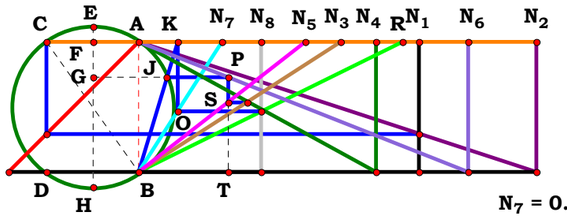
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$ $N_6 - \frac{N_u}{F} = 0$ $N_7 - \frac{N_u}{G} = 0$ $N_8 - \frac{N_u}{H} = 0$

$$R - \frac{G \cdot \left[\sqrt{4 \cdot A^2 \cdot C \cdot F \cdot (C \cdot E - C \cdot F + D \cdot E) + B^2 \cdot E^2 \cdot (C+D)^2} - B \cdot E \cdot (C+D)\right]}{2 \cdot A \cdot H \cdot [C \cdot (E-F) + D \cdot E]} = 0$$

$N_1 - \frac{S}{h} = 0$ $N_2 - \frac{T}{j} = 0$ $N_3 - \frac{U}{k} = 0$ $N_4 - \frac{V}{l} = 0$ $N_5 - \frac{W}{m} = 0$ $N_6 - \frac{X}{n} = 0$ $N_7 - \frac{Y}{o} = 0$ $N_8 - \frac{Z}{p} = 0$

$$R - \frac{Z \cdot o \cdot \left[\sqrt{4 \cdot W \cdot T^2 \cdot V \cdot X \cdot h^2 \cdot k \cdot m \cdot n \cdot (U \cdot l + V \cdot k) - 4 \cdot T^2 \cdot V^2 \cdot h^2 \cdot k^2 \cdot n^2 \cdot W^2 + S^2 \cdot X^2 \cdot j^2 \cdot m^2 \cdot (U \cdot l + V \cdot k)^2} - S \cdot U \cdot X \cdot j \cdot l \cdot m - S \cdot V \cdot X \cdot j \cdot k \cdot m\right]}{2 \cdot T \cdot Y \cdot h \cdot p \cdot (U \cdot X \cdot l \cdot m - V \cdot W \cdot k \cdot n + V \cdot X \cdot k \cdot m)} = 0$$

4RST6AB5R8



$N_7 = 0.63926$

$N_1 = 2.14765$ $N_3 = 1.55186$ $N_5 = 1.27852$ $N_8 = 0.93790$

$N_2 = 3.04843$ $N_4 = 1.82070$ $N_6 = 2.52799$ $R = 2.02073$

Descriptions.

Unit. $AB := 1$ **Given.** $N_1 := 2.14765$ $N_2 := 3.04843$ $N_3 := 1.55186$ $N_4 := 1.82070$

$N_5 := 1.27852$ $N_6 := 2.52799$ $N_7 := .63926$ $N_8 := .93790$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $F := \frac{N_u}{N_6}$ $G := \frac{N_u}{N_7}$ $H := \frac{N_u}{N_8}$

$S := 20$ $T := 19$ $U := 18$ $V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$h := \frac{S}{N_1}$ $j := \frac{T}{N_2}$ $k := \frac{Y}{N_3}$ $l := \frac{V}{N_4}$ $m := \frac{W}{N_5}$ $n := \frac{X}{N_6}$ $o := \frac{Y}{N_7}$ $p := \frac{Z}{N_8}$

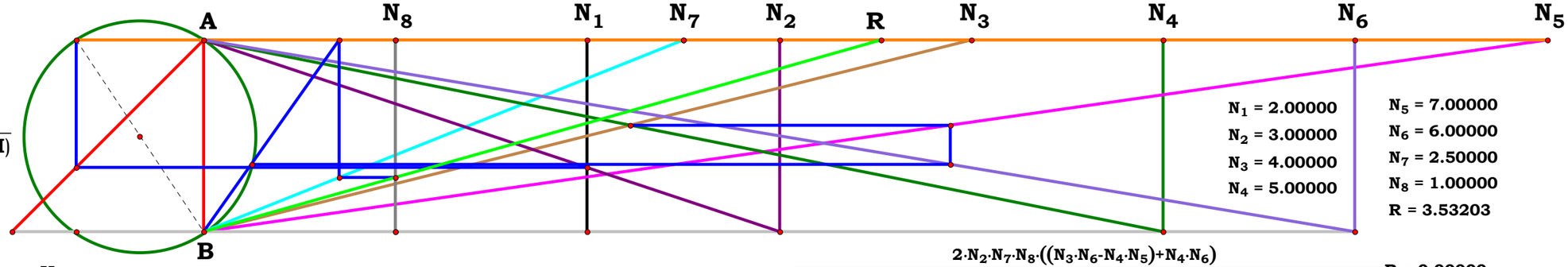
$AC := \frac{N_1}{N_2}$ $EH := \sqrt{AB^2 + AC^2}$ $AF := \frac{AC}{2}$ $EF := \frac{EH - AB}{2}$ $ST := \frac{N_4}{N_3 + N_4}$ $BT := N_5 \cdot ST$

$PT := \frac{N_6 - BT}{N_6}$

$GH := PT + EF$

$GJ := \sqrt{GH \cdot (EH - GH)}$

$AK := \frac{GJ - AF}{PT}$



$N_1 = 2.00000$ $N_5 = 7.00000$

$N_2 = 3.00000$ $N_6 = 6.00000$

$N_3 = 4.00000$ $N_7 = 2.50000$

$N_4 = 5.00000$ $N_8 = 1.00000$

$R = 3.53203$

$$\frac{2 \cdot N_2 \cdot N_7 \cdot N_8 \cdot ((N_3 \cdot N_6 - N_4 \cdot N_5) + N_4 \cdot N_6)}{\sqrt{(N_1 \cdot N_6 \cdot (N_3 + N_4))^2 + 4 \cdot N_2^2 \cdot N_4 \cdot N_5 \cdot ((N_3 \cdot N_6 - N_4 \cdot N_5) + N_4 \cdot N_6)} - N_1 \cdot N_6 \cdot (N_3 + N_4)} - R = 0.00000$$

$KO := \frac{N_7 - AK}{N_7}$ $R := \frac{N_8}{AB - KO}$ $R = 2.02073$

Definitions.

$$R - \frac{2 \cdot N_2 \cdot N_7 \cdot N_8 \cdot (N_3 \cdot N_6 - N_4 \cdot N_5 + N_4 \cdot N_6)}{\sqrt{N_1^2 \cdot N_6^2 \cdot (N_3 + N_4)^2 + 4 \cdot N_2^2 \cdot N_4 \cdot N_5 \cdot (N_3 \cdot N_6 - N_4 \cdot N_5 + N_4 \cdot N_6)} - N_1 \cdot N_6 \cdot (N_3 + N_4)} = 0$$

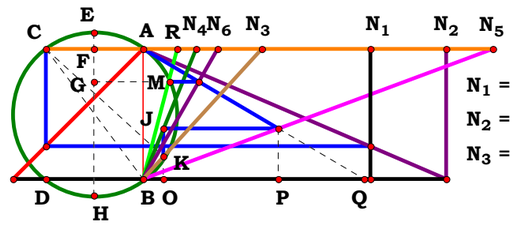
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$ $N_6 - \frac{N_u}{F} = 0$ $N_7 - \frac{N_u}{G} = 0$ $N_8 - \frac{N_u}{H} = 0$

$$R - \frac{2 \cdot A \cdot N_u^2 \cdot [C \cdot (E - F) + D \cdot E]}{G \cdot H \cdot \left[\sqrt{4 \cdot A^2 \cdot C \cdot F \cdot (C \cdot E - C \cdot F + D \cdot E) + B^2 \cdot E^2 \cdot (C + D)^2} - B \cdot E \cdot (C + D)\right]} = 0$$

$N_1 - \frac{S}{h} = 0$ $N_2 - \frac{T}{j} = 0$ $N_3 - \frac{U}{k} = 0$ $N_4 - \frac{V}{l} = 0$ $N_5 - \frac{W}{m} = 0$ $N_6 - \frac{X}{n} = 0$ $N_7 - \frac{Y}{o} = 0$ $N_8 - \frac{Z}{p} = 0$

$$R - \frac{2 \cdot T \cdot Y \cdot Z \cdot h \cdot (U \cdot X \cdot l \cdot m - V \cdot W \cdot k \cdot n + V \cdot X \cdot k \cdot m)}{o \cdot p \cdot \left[\sqrt{4 \cdot W \cdot T^2 \cdot V \cdot X \cdot h^2 \cdot k \cdot m \cdot n \cdot (U \cdot l + V \cdot k) - 4 \cdot T^2 \cdot V^2 \cdot h^2 \cdot k^2 \cdot n^2 \cdot W^2 + S^2 \cdot X^2 \cdot j^2 \cdot m^2 \cdot (U \cdot l + V \cdot k)^2} - S \cdot U \cdot X \cdot j \cdot l \cdot m - S \cdot V \cdot X \cdot j \cdot k \cdot m\right]} = 0$$

4RST6AB5R9



$N_1 = 1.74085$
$N_2 = 2.32200$
$N_3 = 0.91260$
$N_4 = 0.40657$
$N_5 = 2.68296$
$N_6 = 0.57146$
$R = 0.26613$

Unit. $AB := 1$ **Given.** $N_1 := 1.74085$ $N_2 := 2.32200$ $N_3 := .91260$ $N_4 := .40657$ $N_5 := 2.68296$ $N_6 := .57146$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $F := \frac{N_u}{N_6}$

$U := 18$ $V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$k := \frac{U}{N_1}$ $l := \frac{V}{N_2}$ $m := \frac{W}{N_3}$ $n := \frac{X}{N_4}$ $o := \frac{Y}{N_5}$ $p := \frac{Z}{N_6}$

Descriptions.

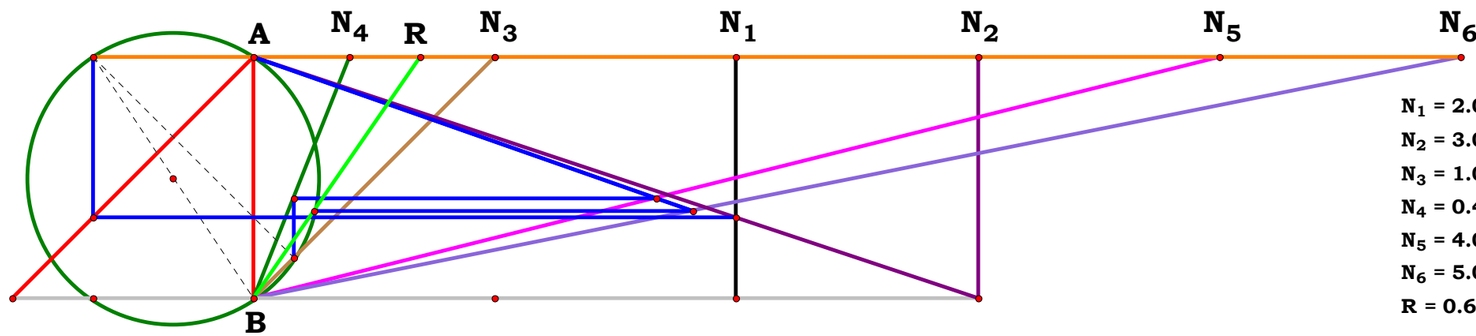
$AC := \frac{N_1}{N_2}$ $EH := \sqrt{AB^2 + AC^2}$ $AF := \frac{AC}{2}$ $EF := \frac{EH - AB}{2}$

$BN_3 := \sqrt{N_3^2 + AB^2}$

$CN_3 := N_3 + AC$

$KN_3 := \frac{N_3 \cdot CN_3}{BN_3}$

$BO := \frac{N_3 \cdot (BN_3 - KN_3)}{BN_3}$



$N_1 = 2.00000$
$N_2 = 3.00000$
$N_3 = 1.00000$
$N_4 = 0.40000$
$N_5 = 4.00000$
$N_6 = 5.00000$
$R = 0.69277$

$JO := \frac{BO}{N_4}$ $BP := N_5 \cdot JO$

$$\frac{N_1\cdot(N_3\cdot(N_5-N_6)\cdot(N_2-N_1\cdot N_3)+N_2\cdot N_4\cdot N_6\cdot(N_3^2+1))-\sqrt{(N_1^2+N_2^2)\cdot(N_3\cdot(N_5-N_6)\cdot(N_2-N_1\cdot N_3)+N_2\cdot N_4\cdot N_6\cdot(N_3^2+1))^2-N_2^2\cdot(N_3\cdot(N_2-N_1\cdot N_3)\cdot(N_5+N_6)-N_2\cdot N_4\cdot N_6\cdot(N_3^2+1))^2}}{2\cdot N_2\cdot N_3\cdot N_5\cdot(N_1\cdot N_3-N_2)} - R = 0.00000$$

$BQ := \frac{BP \cdot AB}{AB - JO}$ $FG := \frac{N_6}{BQ + N_6}$ $EG := FG + EF$ $GM := \sqrt{EG \cdot (EH - EG)}$ $R := \frac{GM - AF}{AB - FG}$ $R = 0.266125$

Definitions.

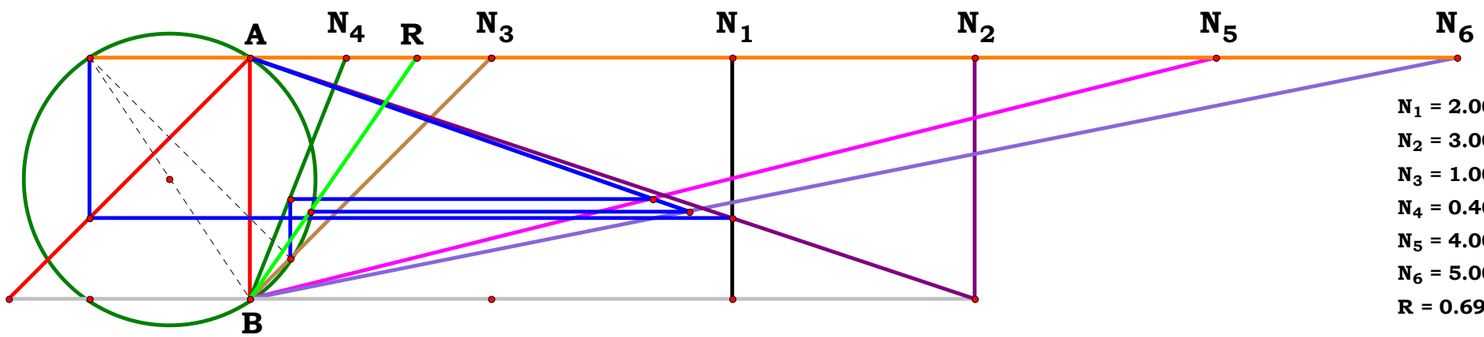
$$R - \frac{N_1 \cdot \left[N_3 \cdot (N_5 - N_6) \cdot (N_2 - N_1 \cdot N_3) + N_2 \cdot N_4 \cdot N_6 \cdot (N_3^2 + 1)\right] \ldots}{+ \ -\sqrt{(N_1^2 + N_2^2) \cdot \left[N_3 \cdot (N_2 - N_1 \cdot N_3) \cdot (N_5 - N_6) + N_2 \cdot N_4 \cdot N_6 \cdot (N_3^2 + 1)\right]^2 - N_2^2 \cdot \left[N_3 \cdot (N_2 - N_1 \cdot N_3) \cdot (N_5 + N_6) - N_2 \cdot N_4 \cdot N_6 \cdot (N_3^2 + 1)\right]^2}}{2 \cdot N_2 \cdot N_3 \cdot N_5 \cdot (N_1 \cdot N_3 - N_2)} = 0$$

$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$ $N_6 - \frac{N_u}{F} = 0$

$$R - \frac{\left[\begin{array}{l}\sqrt{D \cdot F \cdot (A \cdot C - B \cdot N_u) \cdot \left[2 \cdot E \cdot (2 \cdot A^2 + B^2) \cdot \left[A \cdot C^2 - A \cdot D \cdot C + N_u \cdot (B \cdot D + A \cdot N_u)\right] + B^2 \cdot D \cdot F \cdot (A \cdot C - B \cdot N_u)\right] + B^2 \cdot E^2 \cdot \left[A \cdot C^2 - A \cdot D \cdot C + N_u \cdot (B \cdot D + A \cdot N_u)\right]^2} - A \cdot B \cdot E \cdot N_u^2 \ \ldots \\ + \ (B^2 \cdot D \cdot F - B^2 \cdot D \cdot E) \cdot N_u - A \cdot B \cdot C \cdot (C \cdot E - D \cdot E + D \cdot F)\end{array}\right]}{2 \cdot A \cdot D \cdot F \cdot (A \cdot C - B \cdot N_u)} = 0$$

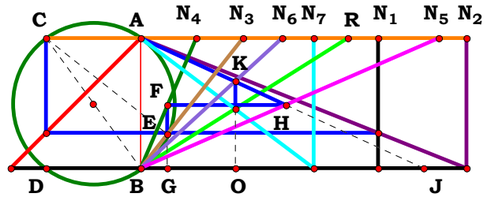
$$N_1 - \frac{U}{k} = 0 \quad N_2 - \frac{V}{l} = 0 \quad N_3 - \frac{W}{m} = 0 \quad N_4 - \frac{X}{n} = 0 \quad N_5 - \frac{Y}{o} = 0 \quad N_6 - \frac{Z}{p} = 0$$

$$R - \frac{X \cdot U \cdot V \cdot Z \cdot k \cdot l \cdot o \cdot \left(W^2 + m^2\right) - U \cdot W \cdot l \cdot n \cdot (Y \cdot p - Z \cdot o) \cdot (U \cdot W \cdot l - V \cdot k \cdot m) - \sqrt{\begin{matrix} X^2 \cdot U^2 \cdot V^2 \cdot Z^2 \cdot k^2 \cdot l^2 \cdot o^2 \cdot \left(W^2 + m^2\right)^2 \ \ldots \\ + \ -2 \cdot X \cdot V \cdot W \cdot Z \cdot k \cdot n \cdot o \cdot \left(W^2 + m^2\right) \cdot (U \cdot W \cdot l - V \cdot k \cdot m) \cdot \left(U^2 \cdot Y \cdot l^2 \cdot p - U^2 \cdot Z \cdot l^2 \cdot o + 2 \cdot V^2 \cdot Y \cdot k^2 \cdot p\right) \ \ldots \\ + \ W^2 \cdot n^2 \cdot (U \cdot W \cdot l - V \cdot k \cdot m)^2 \cdot \left(U^2 \cdot Y^2 \cdot l^2 \cdot p^2 - 2 \cdot U^2 \cdot Y \cdot Z \cdot l^2 \cdot o \cdot p + U^2 \cdot Z^2 \cdot l^2 \cdot o^2 - 4 \cdot V^2 \cdot Y \cdot Z \cdot k^2 \cdot o \cdot p\right) \end{matrix}}}{2 \cdot V \cdot W \cdot Y \cdot k \cdot n \cdot p \cdot (U \cdot W \cdot l - V \cdot k \cdot m)} = 0$$



$$\frac{N_1 \cdot (N_3 \cdot (N_5 - N_6) \cdot (N_2 - N_1 \cdot N_3) + N_2 \cdot N_4 \cdot N_6 \cdot (N_3^2 + 1)) - \sqrt{(N_1^2 + N_2^2) \cdot (N_3 \cdot (N_5 - N_6) \cdot (N_2 - N_1 \cdot N_3) + N_2 \cdot N_4 \cdot N_6 \cdot (N_3^2 + 1))^2 - N_2^2 \cdot (N_3 \cdot (N_2 - N_1 \cdot N_3) \cdot (N_5 + N_6) - N_2 \cdot N_4 \cdot N_6 \cdot (N_3^2 + 1))^2}}{2 \cdot N_2 \cdot N_3 \cdot N_5 \cdot (N_1 \cdot N_3 - N_2)} - R = 0.00000$$

4RST6AB5R10



$N_1 = 1.81833$ $N_3 = 0.78668$ $N_5 = 2.28585$ $N_7 = 1.32695$

$N_2 = 2.49634$ $N_4 = 0.42595$ $N_6 = 1.08481$ $R = 1.59029$

Unit. $AB := 1$ **Given.** $N_1 := 1.81833$ $N_2 := 2.49634$ $N_3 := .78668$ $N_4 := .42595$

$N_5 := 2.28585$ $N_6 := 1.08481$ $N_7 := 1.32695$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $F := \frac{N_u}{N_6}$ $G := \frac{N_u}{N_7}$

$T := 19$ $U := 18$ $V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$j := \frac{T}{N_1}$ $k := \frac{U}{N_2}$ $l := \frac{V}{N_3}$ $m := \frac{W}{N_4}$ $n := \frac{X}{N_5}$ $o := \frac{Y}{N_6}$ $p := \frac{Z}{N_7}$

Descriptions.

$AC := \frac{N_1}{N_2}$ $BN_3 := \sqrt{AB^2 + N_3^2}$

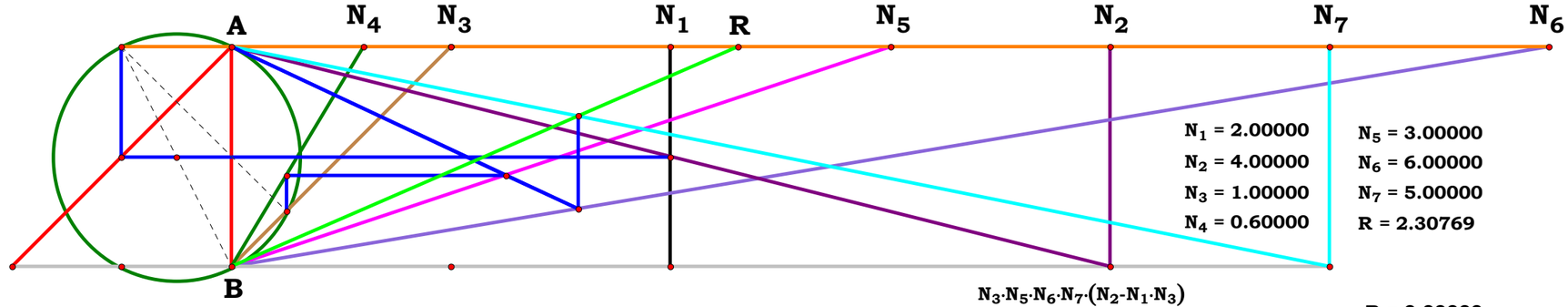
$CN_3 := N_3 + AC$ $EN_3 := \frac{N_3 \cdot CN_3}{BN_3}$

$BG := \frac{N_3 \cdot (BN_3 - EN_3)}{BN_3}$ $FG := \frac{BG}{N_4}$

$FH := N_5 \cdot FG$ $BJ := \frac{FH}{(AB - FG)}$

$BO := \frac{N_6 \cdot BJ}{N_6 + BJ}$ $KO := \frac{N_7 - BO}{N_7}$

$R := \frac{BO}{KO}$ $R = 1.590298$



$N_1 = 2.00000$ $N_5 = 3.00000$

$N_2 = 4.00000$ $N_6 = 6.00000$

$N_3 = 1.00000$ $N_7 = 5.00000$

$N_4 = 0.60000$ $R = 2.30769$

$$\frac{N_3 \cdot N_5 \cdot N_6 \cdot N_7 \cdot (N_2 - N_1 \cdot N_3)}{N_2 \cdot N_4 \cdot N_6 \cdot N_7 \cdot (N_3^2+1) - N_3 \cdot ((N_5 \cdot N_6 - N_5 \cdot N_7) + N_6 \cdot N_7) \cdot (N_2 - N_1 \cdot N_3)} - R = 0.00000$$

Definitions.

$$R - \frac{N_3 \cdot N_5 \cdot N_6 \cdot N_7 \cdot (N_2 - N_1 \cdot N_3)}{N_2 \cdot N_4 \cdot N_6 \cdot N_7 \cdot (N_3^2 + 1) - N_3 \cdot (N_5 \cdot N_6 - N_5 \cdot N_7 + N_6 \cdot N_7) \cdot (N_2 - N_1 \cdot N_3)} = 0$$

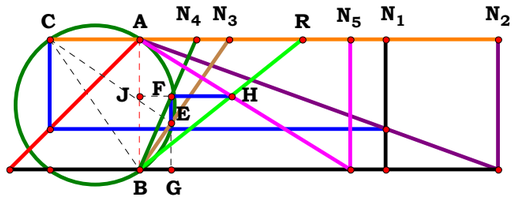
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$ $N_6 - \frac{N_u}{F} = 0$ $N_7 - \frac{N_u}{G} = 0$

$$R - \frac{D \cdot N_u \cdot (A \cdot C - B \cdot N_u)}{F \cdot D \cdot (A \cdot C - B \cdot N_u) + \left[E \cdot \left[A \cdot C^2 - A \cdot D \cdot C + N_u \cdot (B \cdot D + A \cdot N_u)\right]\right] - D \cdot G \cdot (A \cdot C - B \cdot N_u)} = 0$$

$N_1 - \frac{T}{j} = 0$ $N_2 - \frac{U}{k} = 0$ $N_3 - \frac{V}{l} = 0$ $N_4 - \frac{W}{m} = 0$ $N_5 - \frac{X}{n} = 0$ $N_6 - \frac{Y}{o} = 0$ $N_7 - \frac{Z}{p} = 0$

$$R - \frac{V \cdot X \cdot Y \cdot Z \cdot m \cdot (U \cdot j \cdot l - T \cdot V \cdot k)}{W \cdot U \cdot Y \cdot Z \cdot j \cdot n \cdot (V^2 + l^2) + V \cdot m \cdot (X \cdot Y \cdot p - X \cdot Z \cdot o + Y \cdot Z \cdot n) \cdot (T \cdot V \cdot k - U \cdot j \cdot l)} = 0$$

4RST6AB5R11



$N_1 = 1.88613$
$N_2 = 2.74817$
$N_3 = 0.68983$
$N_4 = 0.43563$
$N_5 = 1.61753$
$R = 1.24554$

Unit. $AB := 1$ Given. $N_1 := 1.88613$ $N_2 := 2.74817$ $N_3 := .68983$

$N_4 := .43563$ $N_5 := 1.61753$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$

$V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$l := \frac{V}{N_1}$ $m := \frac{W}{N_2}$ $n := \frac{X}{N_3}$ $o := \frac{Y}{N_4}$ $p := \frac{Z}{N_5}$

Descriptions.

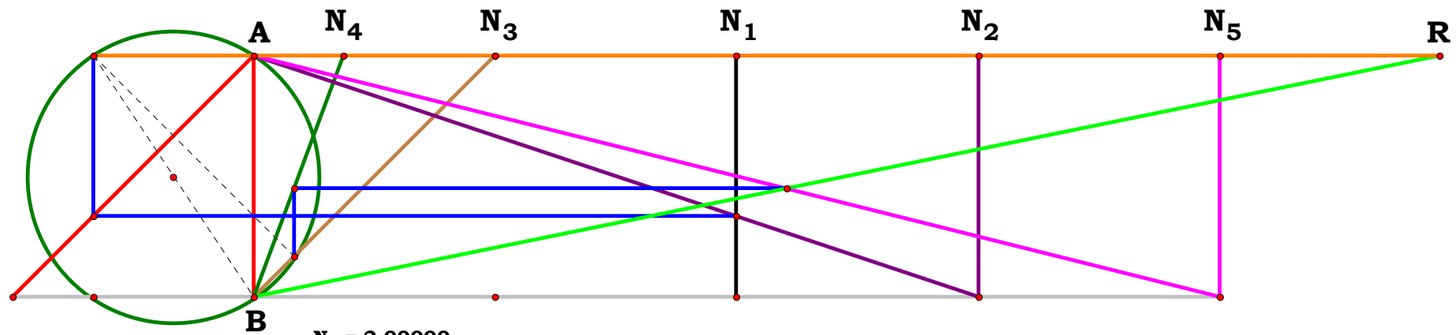
$AC := \frac{N_1}{N_2}$ $BN_3 := \sqrt{N_3^2 + AB^2}$

$CN_3 := N_3 + AC$ $EN_3 := \frac{N_3 \cdot CN_3}{BN_3}$

$BG := \frac{N_3 \cdot (BN_3 - EN_3)}{BN_3}$ $FG := \frac{BG}{N_4}$

$HJ := N_5 \cdot (AB - FG)$ $R := \frac{HJ}{FG}$

$R = 1.245537$



$N_1 = 2.00000$
$N_2 = 3.00000$
$N_3 = 1.00000$
$N_4 = 0.37128$
$N_5 = 4.00000$
$R = 4.91064$

$\frac{N_2 \cdot N_4 \cdot N_5 \cdot (N_3^2+1) - N_3 \cdot N_5 \cdot (N_2 - N_1 \cdot N_3)}{N_3 \cdot (N_2 - N_1 \cdot N_3)} - R = 0.00000$

Definitions.

$$R - \frac{N_2 \cdot N_4 \cdot N_5 \cdot (N_3^2 + 1) - N_3 \cdot N_5 \cdot (N_2 - N_1 \cdot N_3)}{N_3 \cdot (N_2 - N_1 \cdot N_3)} = 0$$

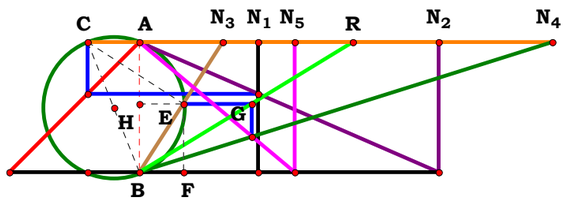
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$

$$R - \frac{N_u \cdot [A \cdot C^2 - A \cdot D \cdot C + N_u \cdot (B \cdot D + A \cdot N_u)]}{D \cdot E \cdot (A \cdot C - B \cdot N_u)} = 0$$

$N_1 - \frac{V}{l} = 0$ $N_2 - \frac{W}{m} = 0$ $N_3 - \frac{X}{n} = 0$ $N_4 - \frac{Y}{o} = 0$ $N_5 - \frac{Z}{p} = 0$

$$R - \frac{Z \cdot [X^2 \cdot (W \cdot Y \cdot l + V \cdot m \cdot o) - W \cdot l \cdot n \cdot (X \cdot o - Y \cdot n)]}{X \cdot o \cdot p \cdot (W \cdot l \cdot n - V \cdot X \cdot m)} = 0$$

4RST6AB5R12



$N_1 = 0.90787$
$N_2 = 2.29294$
$N_3 = 0.64140$
$N_4 = 3.16702$
$N_5 = 1.19135$
$R = 1.63776$

Unit. $AB := 1$ **Given.** $N_1 := .90787$ $N_2 := 2.29294$ $N_3 := .64140$ $N_4 := 3.16702$ $N_5 := 1.19135$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$

$V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$l := \frac{V}{N_1}$ $m := \frac{W}{N_2}$ $n := \frac{X}{N_3}$ $o := \frac{Y}{N_4}$ $p := \frac{Z}{N_5}$

Descriptions.

$AC := \frac{N_1}{N_2}$ $BN_3 := \sqrt{N_3^2 + AB^2}$

$CN_3 := N_3 + AC$ $EN_3 := \frac{N_3 \cdot CN_3}{BN_3}$

$EF := \frac{(BN_3 - EN_3)}{BN_3}$ $HG := \frac{N_5 \cdot N_4}{N_5 + N_4}$

$R := \frac{HG}{EF}$ $R = 1.63776$

Definitions.

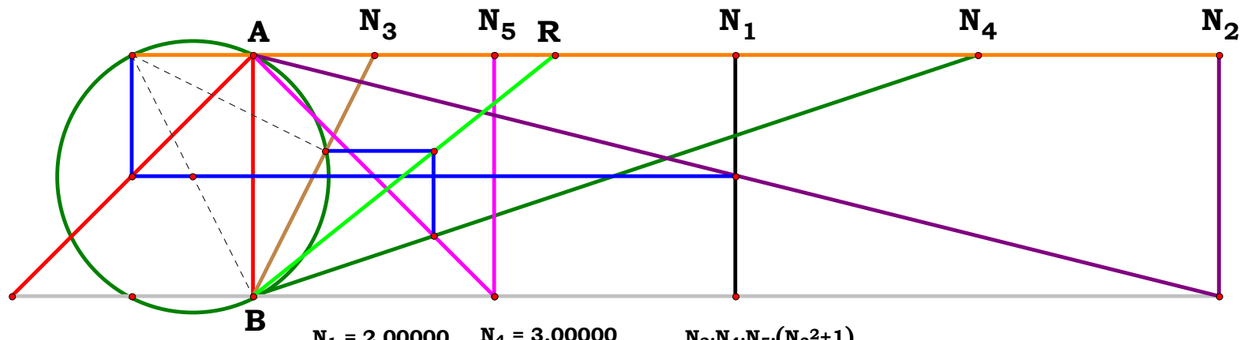
$$R - \frac{N_2 \cdot N_4 \cdot N_5 \cdot (N_3^2 + 1)}{(N_2 - N_1 \cdot N_3) \cdot (N_4 + N_5)} = 0$$

$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$

$$R - \frac{A \cdot N_u \cdot (C^2 + N_u^2)}{C \cdot (D + E) \cdot (A \cdot C - B \cdot N_u)} = 0$$

$N_1 - \frac{V}{l} = 0$ $N_2 - \frac{W}{m} = 0$ $N_3 - \frac{X}{n} = 0$ $N_4 - \frac{Y}{o} = 0$ $N_5 - \frac{Z}{p} = 0$

$$R - \frac{W \cdot Y \cdot Z \cdot l \cdot (X^2 + n^2)}{n \cdot (W \cdot l \cdot n - V \cdot X \cdot m) \cdot (Y \cdot p + Z \cdot o)} = 0$$

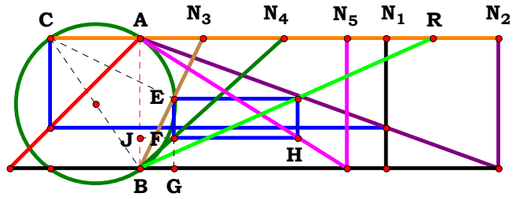


$N_1 = 2.00000$ $N_4 = 3.00000$ $\frac{N_2 \cdot N_4 \cdot N_5 \cdot (N_3^2+1)}{(N_2 - N_1 \cdot N_3) \cdot (N_4 + N_5)} - R = 0.00000$

$N_2 = 4.00000$ $N_5 = 1.00000$

$N_3 = 0.50000$ $R = 1.25000$

4RST6AB5R13



$N_1 = 1.88613$
$N_2 = 2.74817$
$N_3 = 0.48642$
$N_4 = 1.10395$
$N_5 = 1.58847$
$R = 2.24882$

Unit. $AB := 1$ **Given.** $N_1 := 1.88613$ $N_2 := 2.74817$ $N_3 := .48642$

$N_4 := 1.10395$ $N_5 := 1.58847$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$

$V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$l := \frac{V}{N_1}$ $m := \frac{W}{N_2}$ $n := \frac{X}{N_3}$ $o := \frac{Y}{N_4}$ $p := \frac{Z}{N_5}$

Descriptions.

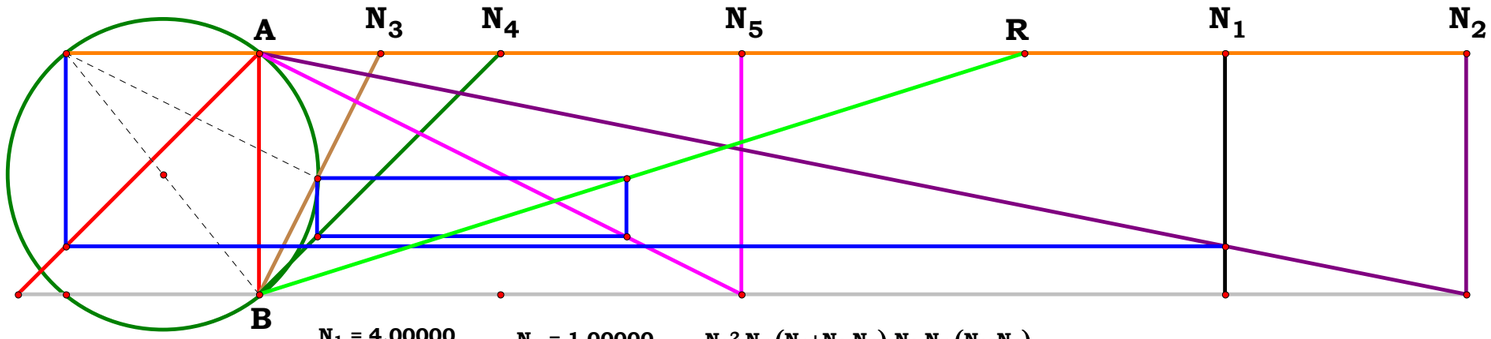
$AC := \frac{N_1}{N_2}$ $BN_3 := \sqrt{N_3^2 + AB^2}$

$CN_3 := N_3 + AC$ $EN_3 := \frac{N_3 \cdot CN_3}{BN_3}$

$BG := \frac{N_3 \cdot (BN_3 - EN_3)}{BN_3}$ $FG := \frac{BG}{N_4}$

$JH := N_5 \cdot (AB - FG)$ $EG := \frac{BN_3 - EN_3}{BN_3}$

$R := \frac{JH}{EG}$ $R = 2.2488$



$N_1 = 4.00000$
$N_2 = 5.00000$
$N_3 = 0.50000$
$N_4 = 1.00000$
$N_5 = 2.00000$
$R = 3.16667$

$\frac{N_3^2 \cdot N_5 \cdot (N_1 + N_2 \cdot N_4) - N_2 \cdot N_5 \cdot (N_3 - N_4)}{N_4 \cdot (N_2 - N_1 \cdot N_3)} - R = 0.00000$

Definitions.

$$R - \frac{N_3^2 \cdot N_5 \cdot (N_1 + N_2 \cdot N_4) - N_2 \cdot N_5 \cdot (N_3 - N_4)}{N_4 \cdot (N_2 - N_1 \cdot N_3)} = 0$$

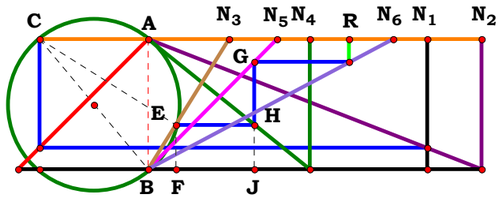
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$

$$R - \frac{N_u \cdot [A \cdot C \cdot (C - D) + N_u \cdot (B \cdot D + A \cdot N_u)]}{C \cdot E \cdot (A \cdot C - B \cdot N_u)} = 0$$

$N_1 - \frac{V}{l} = 0$ $N_2 - \frac{W}{m} = 0$ $N_3 - \frac{X}{n} = 0$ $N_4 - \frac{Y}{o} = 0$ $N_5 - \frac{Z}{p} = 0$

$$R - \frac{Y \cdot W \cdot Z \cdot l \cdot (X^2 + n^2) + X \cdot Z \cdot o \cdot (V \cdot X \cdot m - W \cdot l \cdot n)}{Y \cdot n \cdot p \cdot (W \cdot l \cdot n - V \cdot X \cdot m)} = 0$$

4RST6AB5R14



$N_1 = 2.13797$
$N_2 = 2.55445$
$N_3 = 0.62203$
$N_4 = 1.23955$
$N_5 = 0.98795$
$N_6 = 1.87904$
$R = 1.54267$

Unit. $AB := 1$ **Given.** $N_1 := 2.13797$ $N_2 := 2.55446$ $N_3 := .62203$ $N_4 := 1.23955$ $N_5 := .98795$ $N_6 := 1.87904$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $F := \frac{N_u}{N_6}$

$U := 18$ $V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$k := \frac{U}{N_1}$ $l := \frac{V}{N_2}$ $m := \frac{W}{N_3}$ $n := \frac{X}{N_4}$ $o := \frac{Y}{N_5}$ $p := \frac{Z}{N_6}$

Descriptions.

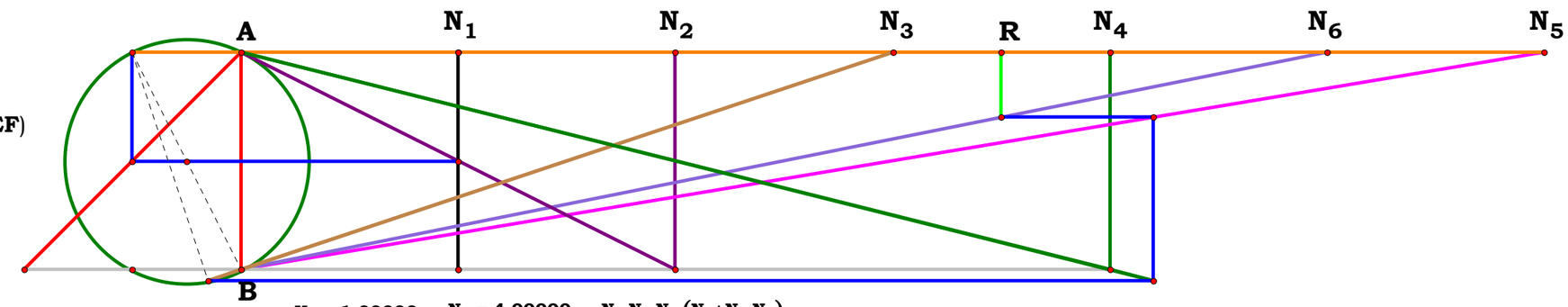
$AC := \frac{N_1}{N_2}$ $BN_3 := \sqrt{N_3^2 + AB^2}$

$CN_3 := N_3 + AC$ $EN_3 := \frac{N_3 \cdot CN_3}{BN_3}$

$EF := \frac{BN_3 - EN_3}{BN_3}$ $BH := N_4 \cdot (AB - EF)$

$GH := \frac{BH}{N_5}$ $R := N_6 \cdot GH$

$R = 1.542679$



$N_1 = 1.00000$ $N_4 = 4.00000$ $\frac{N_3 \cdot N_4 \cdot N_6 \cdot (N_1 + N_2 \cdot N_3)}{N_2 \cdot N_5 \cdot (N_3^2 + 1)} - R = 0.00000$

$N_2 = 2.00000$ $N_5 = 6.00000$

$N_3 = 3.00000$ $N_6 = 5.00000$

$R = 3.50000$

Definitions.

$$R - \frac{N_3 \cdot N_4 \cdot N_6 \cdot (N_1 + N_2 \cdot N_3)}{N_2 \cdot N_5 \cdot (N_3^2 + 1)} = 0$$

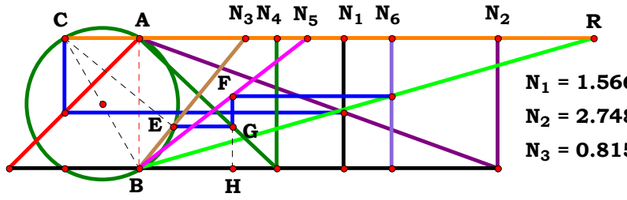
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$ $N_6 - \frac{N_u}{F} = 0$

$$R - \frac{E \cdot N_u^2 \cdot (B \cdot C + A \cdot N_u)}{F \cdot [A \cdot D \cdot (C^2 + N_u^2)]} = 0$$

$N_1 - \frac{U}{k} = 0$ $N_2 - \frac{V}{l} = 0$ $N_3 - \frac{W}{m} = 0$ $N_4 - \frac{X}{n} = 0$ $N_5 - \frac{Y}{o} = 0$ $N_6 - \frac{Z}{p} = 0$

$$R - \frac{W \cdot X \cdot Z \cdot o \cdot (V \cdot W \cdot k + U \cdot l \cdot m)}{p \cdot V \cdot Y \cdot k \cdot n \cdot (W^2 + m^2)} = 0$$

4RST6AB5R15



$N_1 = 1.56650$ $N_4 = 1.05552$
$N_2 = 2.74817$ $N_5 = 1.28821$
$N_3 = 0.81574$ $N_6 = 1.93716$
$R = 3.48314$

Unit. $AB := 1$ **Given.** $N_1 := 1.56650$ $N_2 := 2.74817$ $N_3 := .81574$

$N_4 := 1.05552$ $N_5 := 1.28821$ $N_6 := 1.93716$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $F := \frac{N_u}{N_6}$

$U := 18$ $V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$k := \frac{U}{N_1}$ $l := \frac{V}{N_2}$ $m := \frac{W}{N_3}$ $n := \frac{X}{N_4}$ $o := \frac{Y}{N_5}$ $p := \frac{Z}{N_6}$

Descriptions.

$AC := \frac{N_1}{N_2}$ $BN_3 := \sqrt{N_3^2 + AB^2}$

$CN_3 := N_3 + AC$ $EN_3 := \frac{N_3 \cdot CN_3}{BN_3}$

$GH := \frac{BN_3 - EN_3}{BN_3}$ $BH := N_4 \cdot (AB - GH)$

$FH := \frac{BH}{N_5}$ $R := \frac{N_6}{FH}$ $R = 3.483165$

Definitions.

$$R - \frac{N_2 \cdot N_5 \cdot N_6 \cdot \left(N_3^2 + 1\right)}{N_3 \cdot N_4 \cdot \left(N_1 + N_2 \cdot N_3\right)} = 0$$

$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$

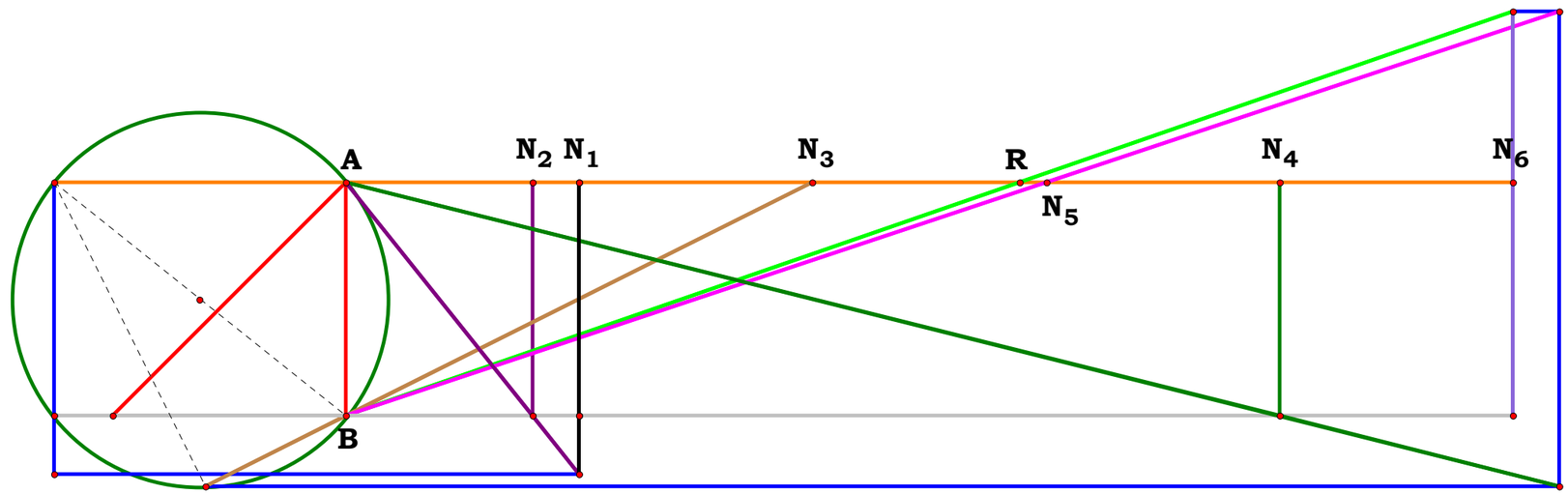
$N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$ $N_6 - \frac{N_u}{F} = 0$

$$R - \frac{A \cdot D \cdot \left(C^2 + N_u^2\right)}{E \cdot F \cdot \left(B \cdot C + A \cdot N_u\right)} = 0$$

$N_1 - \frac{U}{k} = 0$ $N_2 - \frac{V}{l} = 0$ $N_3 - \frac{W}{m} = 0$

$N_4 - \frac{X}{n} = 0$ $N_5 - \frac{Y}{o} = 0$ $N_6 - \frac{Z}{p} = 0$

$$R - \frac{V \cdot Y \cdot Z \cdot k \cdot n \cdot \left(W^2 + m^2\right)}{o \cdot p \cdot [W \cdot X \cdot (V \cdot W \cdot k + U \cdot l \cdot m)]} = 0$$



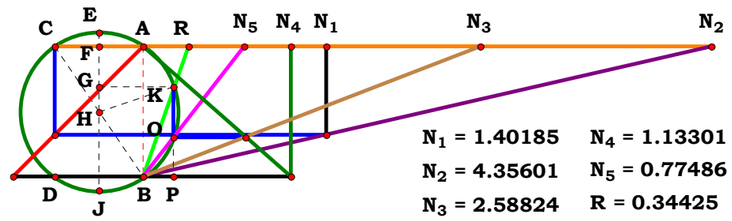
$N_1 = 1.00000$ $N_4 = 4.00000$ $\frac{N_2 \cdot N_5 \cdot N_6 \cdot \left(N_3^2+1\right)}{N_3 \cdot N_4 \cdot \left(N_1+N_2 \cdot N_3\right)} - R = 0.00000$

$N_2 = 0.80000$ $N_5 = 3.00000$

$N_3 = 2.00000$ $N_6 = 5.00000$

$R = 2.88462$

4RST6AB6R0



$N_1 = 1.40185$ $N_4 = 1.13301$
$N_2 = 4.35601$ $N_5 = 0.77486$
$N_3 = 2.58824$ $R = 0.34425$

Unit. $AB := 1$ **Given.** $N_1 := 1.40185$ $N_2 := 4.35601$ $N_3 := 2.58824$

$N_4 := 1.13301$ $N_5 := .77486$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$

$V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $l := \frac{V}{N_1}$ $m := \frac{W}{N_2}$ $n := \frac{X}{N_3}$ $o := \frac{Y}{N_4}$ $p := \frac{Z}{N_5}$

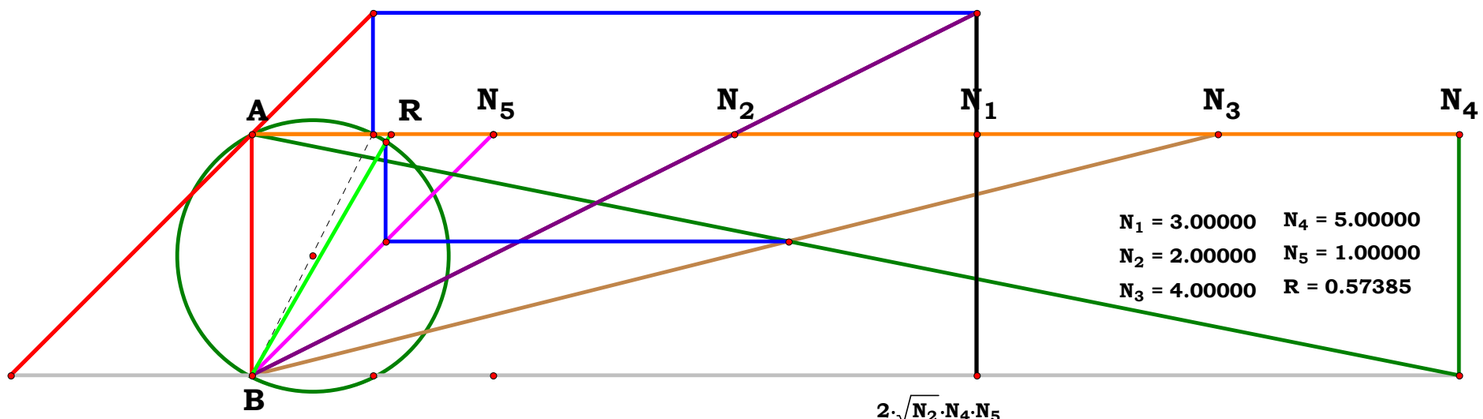
Descriptions.

$AC := \frac{N_2 - N_1}{N_2}$ $EJ := \sqrt{AB^2 + AC^2}$ $EF := \frac{EJ - AB}{2}$

$AF := \frac{AC}{2}$ $OP := \frac{N_4}{N_3 + N_4}$ $BP := N_5 \cdot OP$

$GK := BP + AF$ $HK := \frac{EJ}{2}$ $GH := \sqrt{HK^2 - GK^2}$

$KO := \frac{AB}{2} + GH$ $R := \frac{BP}{KO}$ $R = 0.344251$



$N_1 = 3.00000$ $N_4 = 5.00000$
$N_2 = 2.00000$ $N_5 = 1.00000$
$N_3 = 4.00000$ $R = 0.57385$

$$\frac{2 \cdot \sqrt{N_2} \cdot N_4 \cdot N_5}{\sqrt{N_2} \cdot (N_3 + N_4) + \sqrt{(N_2 \cdot (N_3 + N_4)^2 - 4 \cdot N_2 \cdot N_4^2 \cdot N_5^2) + 4 \cdot N_4 \cdot N_5 \cdot (N_1 - N_2) \cdot (N_3 + N_4)}} - R = 0.00000$$

Definitions.

$$R - \frac{2 \cdot \sqrt{N_2} \cdot N_4 \cdot N_5}{\sqrt{N_2} \cdot (N_3 + N_4) + \sqrt{N_2 \cdot (N_3 + N_4)^2 - 4 \cdot N_2 \cdot N_4^2 \cdot N_5^2 + 4 \cdot N_4 \cdot N_5 \cdot (N_3 + N_4) \cdot (N_1 - N_2)}} = 0$$

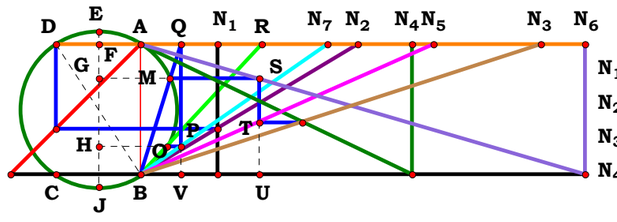
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$

$$R - \frac{2 \cdot C \cdot \left(\sqrt{N_u}\right)^3 \cdot \sqrt{A \cdot B}}{\sqrt{B} \cdot \sqrt{N_u \cdot \left[A \cdot E^2 \cdot (C + D)^2 - 4 \cdot A \cdot C^2 \cdot N_u^2 - 4 \cdot N_u \cdot C \cdot E \cdot (C + D) \cdot (A - B)\right]} + \sqrt{A \cdot B} \cdot \sqrt{N_u} \cdot E \cdot (C + D)} = 0$$

$N_1 - \frac{V}{l} = 0$ $N_2 - \frac{W}{m} = 0$ $N_3 - \frac{X}{n} = 0$ $N_4 - \frac{Y}{o} = 0$ $N_5 - \frac{Z}{p} = 0$

$$R - \frac{2 \cdot \sqrt{W} \cdot Y \cdot Z \cdot n \cdot \sqrt{l \cdot m}}{\sqrt{4 \cdot Z \cdot Y \cdot n \cdot p \cdot (X \cdot o + Y \cdot n) \cdot (V \cdot m - W \cdot l) - 4 \cdot W \cdot Y^2 \cdot l \cdot n^2 \cdot Z^2 + W \cdot l \cdot p^2 \cdot (X \cdot o + Y \cdot n)^2} \cdot \sqrt{m} + \sqrt{l \cdot m} \cdot \sqrt{W} \cdot p \cdot (X \cdot o + Y \cdot n)} = 0$$

4RST6AB6R1



N_1 = 0.58824 N_5 = 2.24710
N_2 = 1.66336 N_6 = 3.40940
N_3 = 3.07253 N_7 = 1.43350
N_4 = 2.08221 R = 0.93106

Unit. $AB := 1$ **Given.** $N_1 := .58824$ $N_2 := 1.66336$ $N_3 := 3.07253$
$N_4 := 2.08221$ $N_5 := 2.24710$ $N_6 := 3.40940$ $N_7 := 1.43350$

Descriptions.

$$AC := \frac{N_2 - N_1}{N_2} \qquad EJ := \sqrt{AB^2 + AC^2}$$

$$AF := \frac{AC}{2} \qquad EF := \frac{EJ - AB}{2}$$

$$TU := \frac{N_4}{N_3 + N_4}$$

$$BU := N_5 \cdot TU$$

$$SU := \frac{N_6 - BU}{N_6}$$

$$GJ := SU + EF$$

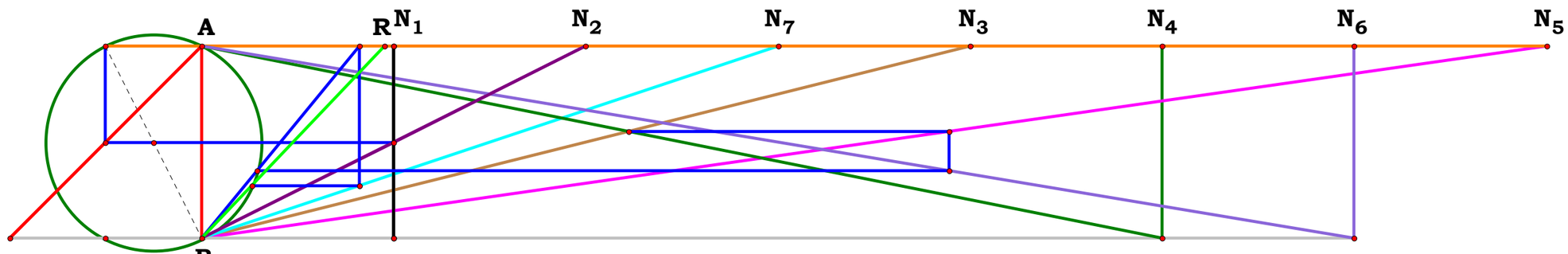
$$GK := \sqrt{GJ \cdot (EJ - GJ)}$$

$$AQ := \frac{GK - AF}{SU}$$

$$PV := \frac{AQ}{N_7} \qquad HJ := PV + EF$$

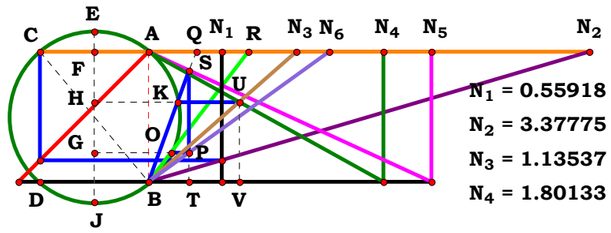
$$HO := \sqrt{HJ \cdot (EJ - HJ)} \qquad R := \frac{HO - AF}{PV}$$

$R = 0.931063$



N_1 = 1.00000 N_5 = 7.00000 AB = 1.00000 EF = 0.05902 GJ = 0.41087 HJ = 0.33283
N_2 = 2.00000 N_6 = 6.00000 AC = 0.50000 TU = 0.55556 GK = 0.53903 HO = 0.51122
N_3 = 4.00000 N_7 = 3.00000 EJ = 1.11803 BU = 3.88889 AQ = 0.82145 $R - \frac{HO - AF}{PV}$ = 0.00000
N_4 = 5.00000 R = 0.95398 AF = 0.25000 SU = 0.35185 PV = 0.27382

4RST6AB6R2



$N_1 = 0.55918$ $N_5 = 2.16962$
$N_2 = 3.37775$ $N_6 = 1.38507$
$N_3 = 1.13537$ $R = 0.76826$
$N_4 = 1.80133$

Unit. $AB := 1$ **Given.** $N_1 := .55918$ $N_2 := 3.37775$ $N_3 := 1.13537$
$N_4 := 1.80133$ $N_5 := 2.16962$ $N_6 := 1.38507$

Descriptions.

$$AC := \frac{N_2 - N_1}{N_2} \qquad EJ := \sqrt{AB^2 + AC^2}$$

$$AF := \frac{AC}{2} \qquad EF := \frac{EJ - AB}{2}$$

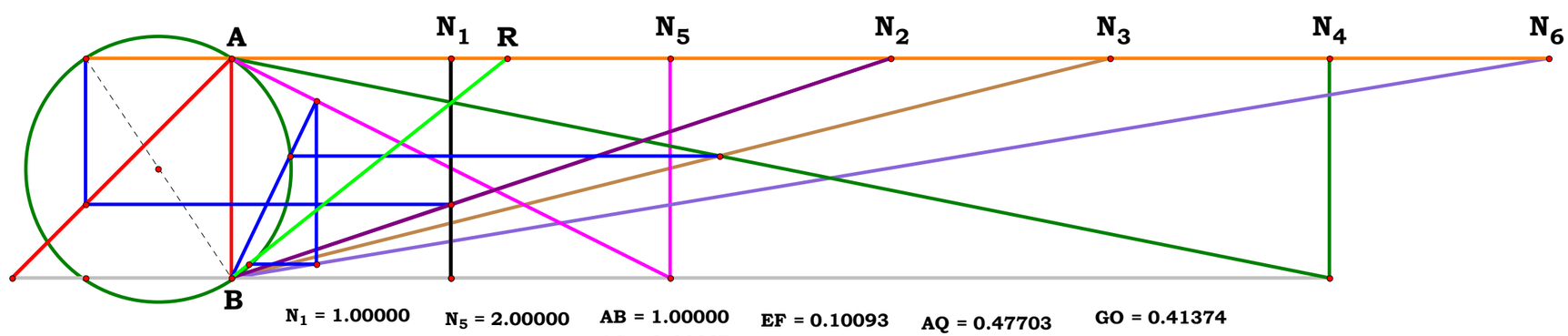
$$UV := \frac{N_4}{N_3 + N_4} \qquad HJ := UV + EF$$

$$HK := \sqrt{HJ \cdot (EJ - HJ)} \qquad AQ := \frac{HK - AF}{UV}$$

$$BT := \frac{AQ \cdot N_5}{AQ + N_5} \qquad PT := \frac{BT}{N_6}$$

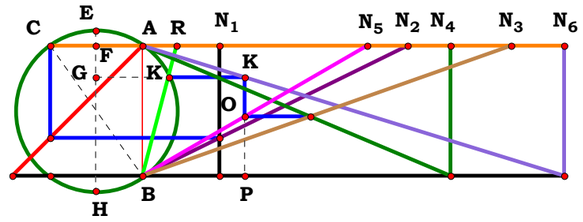
$$GJ := PT + EF \qquad GO := \sqrt{GJ \cdot (EJ - GJ)}$$

$$R := \frac{GO - AF}{PT} \qquad R = 0.768258$$



$N_1 = 1.00000$ $N_5 = 2.00000$ $AB = 1.00000$ $EF = 0.10093$ $AQ = 0.47703$ $GO = 0.41374$
$N_2 = 3.00000$ $N_6 = 6.00000$ $AC = 0.66667$ $UV = 0.55556$ $BT = 0.38516$ $R\text{-}\frac{GO\text{-}AF}{PT} = 0.00000$
$N_3 = 4.00000$ $R = 1.25262$ $EJ = 1.20185$ $HJ = 0.65648$ $PT = 0.06419$
$N_4 = 5.00000$ $AF = 0.33333$ $HK = 0.59835$ $GJ = 0.16512$

4RST6AB6R3



$N_1 = 0.58824$
$N_2 = 2.03142$
$N_3 = 2.83038$
$N_4 = 2.36310$
$N_5 = 1.72407$
$N_6 = 3.23505$
$R = 0.26593$

Descriptions.

$$AC := \frac{N_2 - N_1}{N_2} \qquad EH := \sqrt{AB^2 + AC^2} \qquad EF := \frac{EH - AB}{2}$$

$$AF := \frac{AC}{2} \qquad OP := \frac{N_4}{N_3 + N_4} \qquad BP := N_5 \cdot OP$$

$$KP := AB - \frac{BP}{N_6} \qquad GH := KP + EF$$

$$GJ := \sqrt{GH \cdot (EH - GH)} \qquad R := \frac{GJ - AF}{KP}$$

$R = 0.265928$

Definitions.

$$R - \frac{\sqrt{N_6^2 \cdot (N_3 + N_4)^2 \cdot (N_1 - N_2)^2 + 4 \cdot N_2^2 \cdot N_4 \cdot N_5 \cdot (N_3 \cdot N_6 - N_4 \cdot N_5 + N_4 \cdot N_6)} + N_6 \cdot (N_3 + N_4) \cdot (N_1 - N_2)}{2 \cdot N_2 \cdot (N_3 \cdot N_6 - N_4 \cdot N_5 + N_4 \cdot N_6)} = 0$$

$$N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0 \quad N_4 - \frac{N_u}{D} = 0 \quad N_5 - \frac{N_u}{E} = 0 \quad N_6 - \frac{N_u}{F} = 0$$

$$R - \frac{\sqrt{4 \cdot A^2 \cdot C \cdot F \cdot (C \cdot E - C \cdot F + D \cdot E) + E^2 \cdot (C + D)^2 \cdot (A - B)^2} - E \cdot (C + D) \cdot (A - B)}{2 \cdot A \cdot (C \cdot E - C \cdot F + D \cdot E)} = 0$$

$$N_1 - \frac{U}{k} = 0 \quad N_2 - \frac{V}{l} = 0 \quad N_3 - \frac{W}{m} = 0 \quad N_4 - \frac{X}{n} = 0 \quad N_5 - \frac{Y}{o} = 0 \quad N_6 - \frac{Z}{p} = 0$$

$$R - \frac{\sqrt{Z^2 \cdot o^2 \cdot (W \cdot n + X \cdot m)^2 \cdot (U \cdot l - V \cdot k)^2 + 4 \cdot Z \cdot V^2 \cdot X \cdot Y \cdot k^2 \cdot m \cdot o \cdot p \cdot (W \cdot n + X \cdot m) - 4 \cdot V^2 \cdot X^2 \cdot Y^2 \cdot k^2 \cdot m^2 \cdot p^2} + Z \cdot o \cdot (W \cdot n + X \cdot m) \cdot (U \cdot l - V \cdot k)}{2 \cdot V \cdot k \cdot (W \cdot Z \cdot n \cdot o - X \cdot Y \cdot m \cdot p + X \cdot Z \cdot m \cdot o)} = 0$$

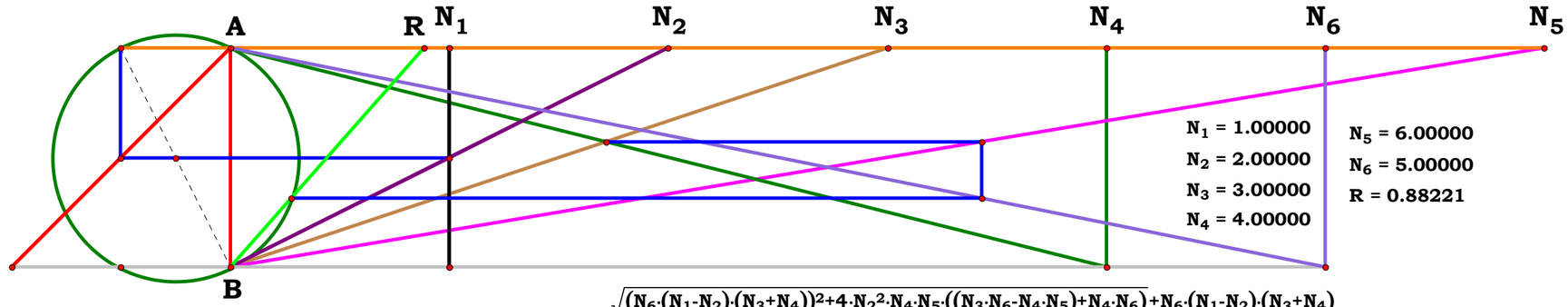
Unit. $AB := 1$ **Given.** $N_1 := .58824$ $N_2 := 2.03142$ $N_3 := 2.83038$

$N_4 := 2.36310$ $N_5 := 1.72407$ $N_6 := 3.23505$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $F := \frac{N_u}{N_6}$

$U := 18$ $V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

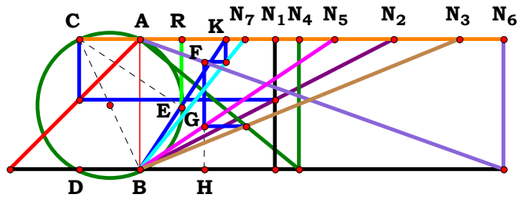
$k := \frac{U}{N_1}$ $l := \frac{V}{N_2}$ $m := \frac{W}{N_3}$ $n := \frac{X}{N_4}$ $o := \frac{Y}{N_5}$ $p := \frac{Z}{N_6}$



$N_1 = 1.00000$
$N_2 = 2.00000$
$N_3 = 3.00000$
$N_4 = 4.00000$
$N_5 = 6.00000$
$N_6 = 5.00000$
$R = 0.88221$

$$\frac{\sqrt{(N_6 \cdot (N_1 - N_2) \cdot (N_3 + N_4))^2 + 4 \cdot N_2^2 \cdot N_4 \cdot N_5 \cdot ((N_3 \cdot N_6 - N_4 \cdot N_5) + N_4 \cdot N_6)} + N_6 \cdot (N_1 - N_2) \cdot (N_3 + N_4)}{2 \cdot N_2 \cdot ((N_3 \cdot N_6 - N_4 \cdot N_5) + N_4 \cdot N_6)} - R = 0.00000$$

4RST6AB6R4



$N_1 = 1.03379$ $N_3 = 2.45264$ $N_5 = 1.49161$ $N_7 = 0.80392$

$N_2 = 1.94425$ $N_4 = 1.22018$ $N_6 = 2.78951$ $R = 0.31762$

Descriptions.

$$AC := \frac{N_2 - N_1}{N_2} \qquad GH := \frac{N_4}{N_3 + N_4}$$

$$BH := N_5 \cdot GH \qquad FH := \frac{N_6 - BH}{N_6}$$

$$AK := N_7 \cdot FH \qquad BK := \sqrt{AK^2 + AB^2}$$

$$CK := AK + AC \qquad EK := \frac{AK \cdot CK}{BK}$$

$$R := AK \cdot \frac{(BK - EK)}{BK} \qquad R = 0.317619$$

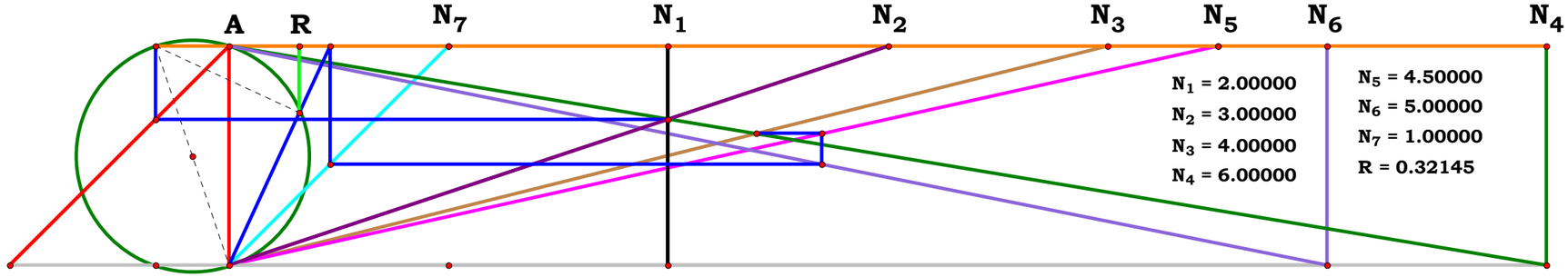
Unit. $AB := 1$ **Given.** $N_1 := 1.03379$ $N_2 := 1.94425$ $N_3 := 2.45264$ $N_4 := 1.22018$

$N_5 := 1.49161$ $N_6 := 2.78951$ $N_7 := .80392$

$$N_u := 3 \quad A := \frac{N_u}{N_1} \quad B := \frac{N_u}{N_2} \quad C := \frac{N_u}{N_3} \quad D := \frac{N_u}{N_4} \quad E := \frac{N_u}{N_5} \quad F := \frac{N_u}{N_6} \quad G := \frac{N_u}{N_7}$$

$T := 19$ $U := 18$ $V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$$j := \frac{T}{N_1} \quad k := \frac{U}{N_2} \quad l := \frac{V}{N_3} \quad m := \frac{W}{N_4} \quad n := \frac{X}{N_5} \quad o := \frac{Y}{N_6} \quad p := \frac{Z}{N_7}$$



Definitions.

B

$$R - \frac{N_7^2 \cdot (N_1 - N_2) \cdot (N_3 \cdot N_6 - N_4 \cdot N_5 + N_4 \cdot N_6)^2 + N_2 \cdot N_6 \cdot N_7 \cdot (N_3 + N_4) \cdot (N_3 \cdot N_6 - N_4 \cdot N_5 + N_4 \cdot N_6)}{N_2 \cdot \left[N_7^2 \cdot (N_3 \cdot N_6 - N_4 \cdot N_5 + N_4 \cdot N_6)^2 + N_6^2 \cdot (N_3 + N_4)^2 \right]} = 0$$

$$\frac{N_7^2 \cdot (N_1 - N_2) \cdot ((N_3 \cdot N_6 - N_4 \cdot N_5) + N_4 \cdot N_6)^2 + N_2 \cdot N_6 \cdot N_7 \cdot (N_3 + N_4) \cdot ((N_3 \cdot N_6 - N_4 \cdot N_5) + N_4 \cdot N_6)}{N_2 \cdot (N_7^2 \cdot ((N_3 \cdot N_6 - N_4 \cdot N_5) + N_4 \cdot N_6)^2 + N_6^2 \cdot (N_3 + N_4)^2)} - R = 0.00000$$

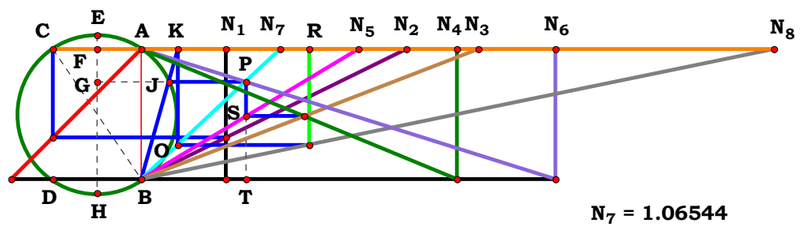
$$N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0 \quad N_4 - \frac{N_u}{D} = 0 \quad N_5 - \frac{N_u}{E} = 0 \quad N_6 - \frac{N_u}{F} = 0 \quad N_7 - \frac{N_u}{G} = 0$$

$$R - \frac{N_u \cdot (C \cdot E - C \cdot F + D \cdot E) \cdot \left[A \cdot E \cdot G \cdot (C + D) - N_u \cdot (A - B) \cdot (C \cdot E - C \cdot F + D \cdot E) \right]}{A \cdot \left[N_u^2 \cdot (C \cdot E - C \cdot F + D \cdot E)^2 + E^2 \cdot G^2 \cdot (C + D)^2 \right]} = 0$$

$$N_1 - \frac{T}{j} = 0 \quad N_2 - \frac{U}{k} = 0 \quad N_3 - \frac{V}{l} = 0 \quad N_4 - \frac{W}{m} = 0 \quad N_5 - \frac{X}{n} = 0 \quad N_6 - \frac{Y}{o} = 0 \quad N_7 - \frac{Z}{p} = 0$$

$$R - \frac{Z \cdot (V \cdot Y \cdot m \cdot n - W \cdot X \cdot l \cdot o + W \cdot Y \cdot l \cdot n) \cdot [Z \cdot (V \cdot Y \cdot m \cdot n - W \cdot X \cdot l \cdot o + W \cdot Y \cdot l \cdot n) \cdot (T \cdot k - U \cdot j) + U \cdot Y \cdot j \cdot n \cdot p \cdot (V \cdot m + W \cdot l)]}{U \cdot j \cdot \left[Z^2 \cdot (V \cdot Y \cdot m \cdot n - W \cdot X \cdot l \cdot o + W \cdot Y \cdot l \cdot n)^2 + Y^2 \cdot n^2 \cdot p^2 \cdot (V \cdot m + W \cdot l)^2 \right]} = 0$$

4RST6AB6R5



$N_1 = 0.64635$ $N_3 = 2.58824$ $N_5 = 1.66595$ $N_7 = 1.06544$

$N_2 = 2.03142$ $N_4 = 2.42122$ $N_6 = 3.17694$ $N_8 = 4.84868$ $R = 1.29081$

Unit. $AB := 1$ **Given.** $N_1 := .64635$ $N_2 := 2.03142$ $N_3 := 2.58824$ $N_4 := 2.42122$ $N_5 := 1.66595$ $N_6 := 3.17694$ $N_7 := 1.06544$ $N_8 := 4.84868$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $F := \frac{N_u}{N_6}$ $G := \frac{N_u}{N_7}$ $H := \frac{N_u}{N_8}$

$S := 20$ $T := 19$ $U := 18$ $V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$h := \frac{S}{N_1}$ $j := \frac{T}{N_2}$ $k := \frac{Y}{N_3}$ $l := \frac{V}{N_4}$ $m := \frac{W}{N_5}$ $n := \frac{X}{N_6}$ $o := \frac{Y}{N_7}$ $p := \frac{Z}{N_8}$

Descriptions.

$AC := \frac{N_2 - N_1}{N_2}$ $EH := \sqrt{AB^2 + AC^2}$ $AF := \frac{AC}{2}$ $EF := \frac{EH - AB}{2}$

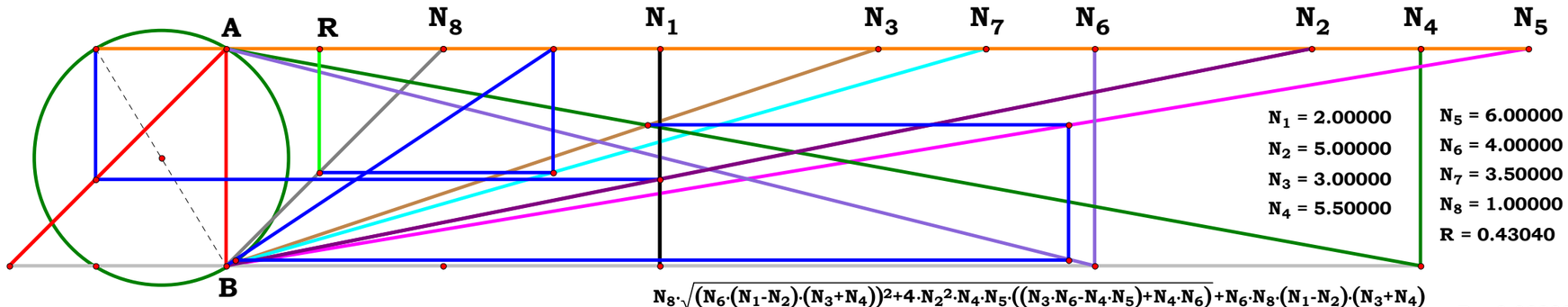
$ST := \frac{N_4}{N_3 + N_4}$ $BT := N_5 \cdot ST$

$PT := \frac{N_6 - BT}{N_6}$ $GH := PT + EF$

$GJ := \sqrt{GH \cdot (EH - GH)}$

$AK := \frac{(GJ - AF)}{PT}$

$KO := \frac{N_7 - AK}{N_7}$ $R := N_8 \cdot (AB - KO)$ $R = 1.290805$



$N_1 = 2.00000$ $N_5 = 6.00000$

$N_2 = 5.00000$ $N_6 = 4.00000$

$N_3 = 3.00000$ $N_7 = 3.50000$

$N_4 = 5.50000$ $N_8 = 1.00000$

$R = 0.43040$

$$\frac{N_8 \cdot \sqrt{(N_6 \cdot (N_1 - N_2) \cdot (N_3 + N_4))^2 + 4 \cdot N_2^2 \cdot N_4 \cdot N_5 \cdot ((N_3 \cdot N_6 - N_4 \cdot N_5) + N_4 \cdot N_6)} + N_6 \cdot N_8 \cdot (N_1 - N_2) \cdot (N_3 + N_4)}{2 \cdot N_2 \cdot N_7 \cdot ((N_3 \cdot N_6 - N_4 \cdot N_5) + N_4 \cdot N_6)} - R = 0.00000$$

Definitions.

$$R - \frac{N_8 \cdot \left[\sqrt{N_6^2 \cdot (N_3 + N_4)^2 \cdot (N_1 - N_2)^2 + 4 \cdot N_2^2 \cdot N_4 \cdot N_5 \cdot (N_3 \cdot N_6 - N_4 \cdot N_5 + N_4 \cdot N_6)} + N_6 \cdot (N_3 + N_4) \cdot (N_1 - N_2)\right]}{2 \cdot N_2 \cdot N_7 \cdot (N_3 \cdot N_6 - N_4 \cdot N_5 + N_4 \cdot N_6)} = 0$$

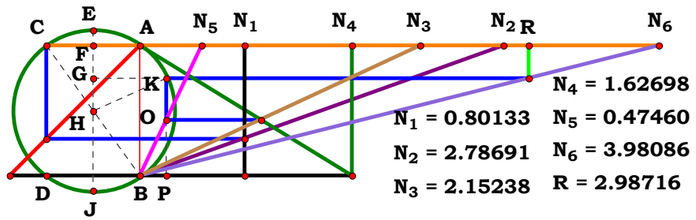
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$ $N_6 - \frac{N_u}{F} = 0$ $N_7 - \frac{N_u}{G} = 0$ $N_8 - \frac{N_u}{H} = 0$

$$R - \frac{G \cdot \left[\sqrt{E^2 \cdot (C + D)^2 \cdot (A - B)^2 + 4 \cdot E \cdot A^2 \cdot C \cdot F \cdot (C + D)} - 4 \cdot A^2 \cdot C^2 \cdot F^2 - E \cdot (C + D) \cdot (A - B)\right]}{2 \cdot A \cdot H \cdot (C \cdot E - C \cdot F + D \cdot E)} = 0$$

$N_1 - \frac{S}{h} = 0$ $N_2 - \frac{T}{j} = 0$ $N_3 - \frac{U}{k} = 0$ $N_4 - \frac{V}{l} = 0$ $N_5 - \frac{W}{m} = 0$ $N_6 - \frac{X}{n} = 0$ $N_7 - \frac{Y}{o} = 0$ $N_8 - \frac{Z}{p} = 0$

$$R - \frac{N_8 \cdot \left[\sqrt{N_6^2 \cdot (N_3 + N_4)^2 \cdot (N_1 - N_2)^2 + 4 \cdot N_2^2 \cdot N_4 \cdot N_5 \cdot (N_3 \cdot N_6 - N_4 \cdot N_5 + N_4 \cdot N_6)} + N_6 \cdot (N_3 + N_4) \cdot (N_1 - N_2)\right]}{2 \cdot N_2 \cdot N_7 \cdot (N_3 \cdot N_6 - N_4 \cdot N_5 + N_4 \cdot N_6)} = 0$$

4RST6AB6R6



Unit. $AB := 1$ Given. $N_1 := .80133$ $N_2 := 2.78691$ $N_3 := 2.15238$

$N_4 := 1.62698$ $N_5 := .47460$ $N_6 := 3.98086$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $F := \frac{N_u}{N_6}$

$U := 18$ $V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$k := \frac{U}{N_1}$ $l := \frac{V}{N_2}$ $m := \frac{W}{N_3}$ $n := \frac{X}{N_4}$ $o := \frac{Y}{N_5}$ $p := \frac{Z}{N_6}$

Descriptions.

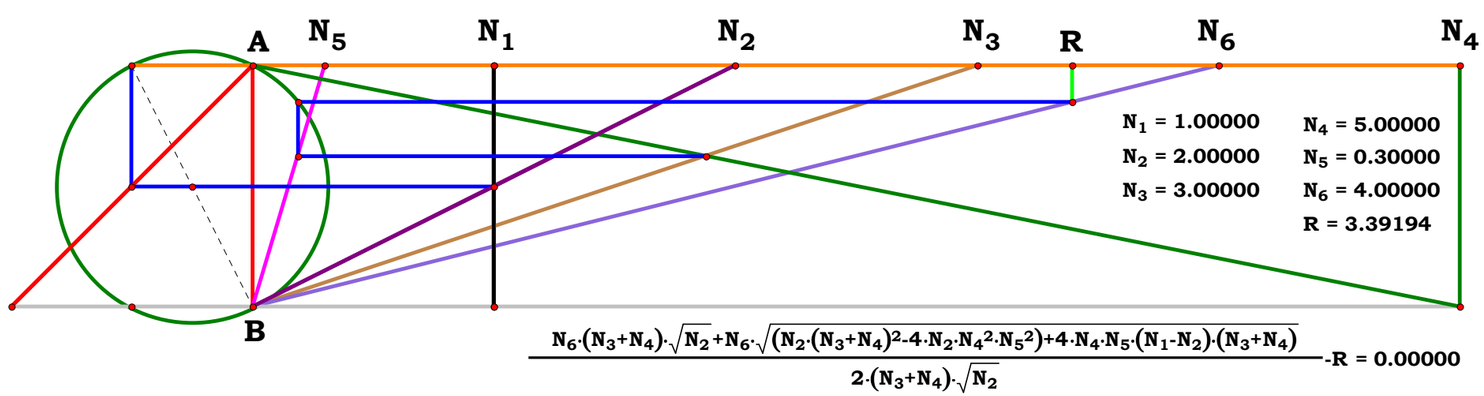
$AC := \frac{N_2 - N_1}{N_2}$ $EJ := \sqrt{AB^2 + AC^2}$ $AF := \frac{AC}{2}$

$EF := \frac{EJ - AB}{2}$ $HK := \frac{EJ}{2}$ $OP := \frac{N_4}{N_3 + N_4}$

$BP := N_5 \cdot OP$ $GK := AF + BP$

$GH := \sqrt{HK^2 - GK^2}$ $KP := GH + HK - EF$

$R := N_6 \cdot KP$ $R = 2.987175$



$$\frac{N_6\cdot(N_3+N_4)\cdot\sqrt{N_2}+N_6\cdot\sqrt{(N_2\cdot(N_3+N_4)^2-4\cdot N_2\cdot N_4^2\cdot N_5^2)+4\cdot N_4\cdot N_5\cdot(N_1-N_2)\cdot(N_3+N_4)}}{2\cdot(N_3+N_4)\cdot\sqrt{N_2}} - R = 0.00000$$

Definitions.

$$R - \frac{N_6\cdot\left[\sqrt{N_2}\cdot(N_3+N_4)+\sqrt{N_2\cdot(N_3+N_4)^2-4\cdot N_2\cdot N_4^2\cdot N_5^2+4\cdot N_4\cdot N_5\cdot(N_3+N_4)\cdot(N_1-N_2)}\right]}{2\cdot\sqrt{N_2}\cdot(N_3+N_4)} = 0$$

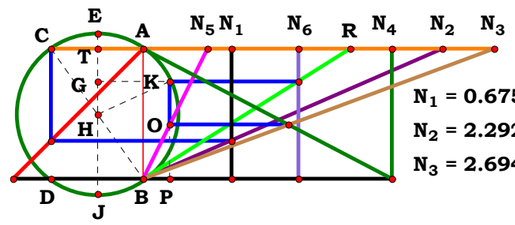
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$ $N_6 - \frac{N_u}{F} = 0$

$$R - \frac{\sqrt{N_u}\cdot\left[\sqrt{B}\cdot\sqrt{N_u\cdot\left[E\cdot\left[A\cdot E\cdot(C+D)-4\cdot C\cdot N_u\cdot(A-B)\right]\cdot(C+D)-4\cdot A\cdot C^2\cdot N_u^2\right]}+\sqrt{A\cdot B}\cdot\sqrt{N_u}\cdot E\cdot(C+D)\right]}{2\cdot F\cdot(C+D)\cdot\sqrt{A\cdot B}\cdot E} = 0$$

$N_1 - \frac{U}{k} = 0$ $N_2 - \frac{V}{l} = 0$ $N_3 - \frac{W}{m} = 0$ $N_4 - \frac{X}{n} = 0$ $N_5 - \frac{Y}{o} = 0$ $N_6 - \frac{Z}{p} = 0$

$$R - \frac{Z\cdot\left[\sqrt{4\cdot Y\cdot X\cdot m\cdot o\cdot(W\cdot n+X\cdot m)\cdot(U\cdot l-V\cdot k)-4\cdot V\cdot X^2\cdot k\cdot m^2\cdot Y^2+V\cdot k\cdot o^2\cdot(W\cdot n+X\cdot m)^2}\cdot\sqrt{l}+\sqrt{k\cdot l}\cdot\sqrt{V}\cdot o\cdot(W\cdot n+X\cdot m)\right]}{2\cdot\sqrt{V}\cdot o\cdot p\cdot(W\cdot n+X\cdot m)\cdot\sqrt{k\cdot l}} = 0$$

4RST6AB6R7



$N_1 = 0.67541$ $N_2 = 2.29294$ $N_3 = 2.69478$ $N_4 = 1.90787$ $N_5 = 0.49397$ $N_6 = 1.19135$ $R = 1.58373$

Unit. $AB := 1$ Given. $N_1 := .67541$ $N_2 := 2.29294$ $N_3 := 2.69478$ $N_4 := 1.90787$ $N_5 := .49397$ $N_6 := 1.19135$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $F := \frac{N_u}{N_6}$

$U := 18$ $V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$k := \frac{U}{N_1}$ $l := \frac{V}{N_2}$ $m := \frac{W}{N_3}$ $n := \frac{X}{N_4}$ $o := \frac{Y}{N_5}$ $p := \frac{Z}{N_6}$

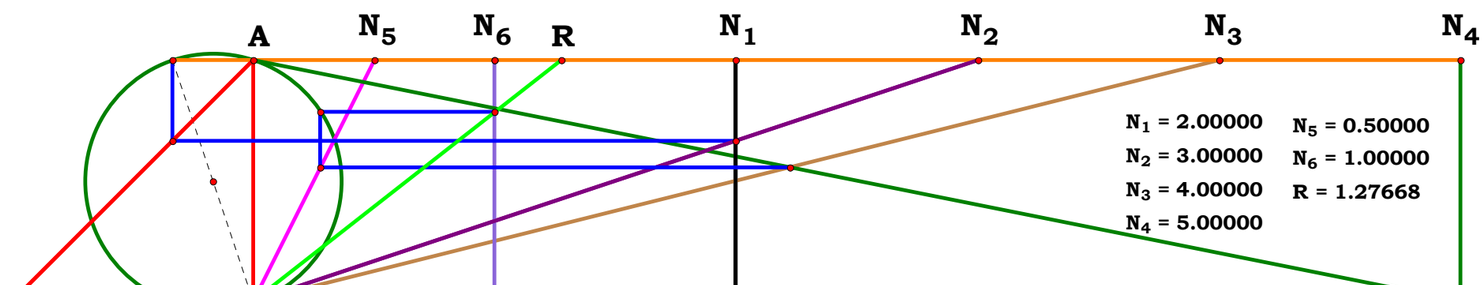
Descriptions.

$AC := \frac{N_2 - N_1}{N_2}$ $EJ := \sqrt{AB^2 + AC^2}$ $AF := \frac{AC}{2}$

$EF := \frac{EJ - AB}{2}$ $HK := \frac{EJ}{2}$ $OP := \frac{N_4}{N_3 + N_4}$

$BP := N_5 \cdot OP$ $GK := AF + BP$ $GH := \sqrt{HK^2 - GK^2}$

$KP := GH + HK - EF$ $R := \frac{N_6}{KP}$ $R = 1.583718$



$N_1 = 2.00000$ $N_2 = 3.00000$ $N_3 = 4.00000$ $N_4 = 5.00000$ $N_5 = 0.50000$ $N_6 = 1.00000$ $R = 1.27668$

B

$$\frac{2 \cdot N_6 \cdot (N_3+N_4) \cdot \sqrt{N_2}}{(N_3+N_4) \cdot \sqrt{N_2} + \sqrt{(N_2 \cdot (N_3+N_4)^2 - 4 \cdot N_2 \cdot N_4^2 \cdot N_5^2) + 4 \cdot N_4 \cdot N_5 \cdot (N_1 - N_2) \cdot (N_3+N_4)}} - R = 0.00000$$

Definitions.

$$R - \frac{2 \cdot \sqrt{N_2} \cdot N_6 \cdot (N_3 + N_4)}{\sqrt{N_2} \cdot (N_3 + N_4) + \sqrt{N_2 \cdot (N_3 + N_4)^2 - 4 \cdot N_2 \cdot N_4^2 \cdot N_5^2 + 4 \cdot N_4 \cdot N_5 \cdot (N_3 + N_4) \cdot (N_1 - N_2)}} = 0$$

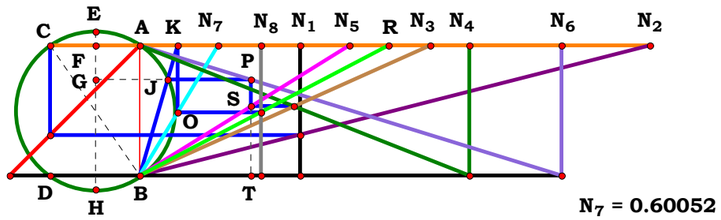
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$ $N_6 - \frac{N_u}{F} = 0$

$$R - \frac{2 \cdot \left(\sqrt{N_u}\right)^3 \cdot (C + D) \cdot \sqrt{A \cdot B} \cdot E}{F \cdot \left[\sqrt{B} \cdot \sqrt{N_u} \cdot \left[E \cdot \left[A \cdot E \cdot (C + D) - 4 \cdot C \cdot N_u \cdot (A - B)\right] \cdot (C + D) - 4 \cdot A \cdot C^2 \cdot N_u^2\right] + \sqrt{A \cdot B} \cdot \sqrt{N_u} \cdot E \cdot (C + D)\right]} = 0$$

$N_1 - \frac{U}{k} = 0$ $N_2 - \frac{V}{l} = 0$ $N_3 - \frac{W}{m} = 0$ $N_4 - \frac{X}{n} = 0$ $N_5 - \frac{Y}{o} = 0$ $N_6 - \frac{Z}{p} = 0$

$$R - \frac{2 \cdot \sqrt{V} \cdot Z \cdot o \cdot (W \cdot n + X \cdot m) \cdot \sqrt{k \cdot l}}{p \cdot \left[\sqrt{4 \cdot Y \cdot X \cdot m \cdot o \cdot (W \cdot n + X \cdot m) \cdot (U \cdot l - V \cdot k) - 4 \cdot V \cdot X^2 \cdot k \cdot m^2 \cdot Y^2 + V \cdot k \cdot o^2 \cdot (W \cdot n + X \cdot m)^2} \cdot \sqrt{l} + \sqrt{k \cdot l} \cdot \sqrt{V} \cdot o \cdot (W \cdot n + X \cdot m)\right]} = 0$$

4RST6AB6R8



$N_7 = 0.60052$

$N_1 = 1.22750$ $N_3 = 2.22987$ $N_5 = 1.60784$ $N_8 = 0.92838$

$N_2 = 3.91046$ $N_4 = 2.52776$ $N_6 = 3.23505$ $R = 1.90359$

Unit. $AB := 1$ **Given.** $N_1 := 1.22750$ $N_2 := 3.91046$ $N_3 := 2.22987$ $N_4 := 2.52776$

$N_5 := 1.60784$ $N_6 := 3.23505$ $N_7 := .60052$ $N_8 := .92838$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $F := \frac{N_u}{N_6}$ $G := \frac{N_u}{N_7}$ $H := \frac{N_u}{N_8}$

$S := 20$ $T := 19$ $U := 18$ $V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$h := \frac{S}{N_1}$ $j := \frac{T}{N_2}$ $k := \frac{Y}{N_3}$ $l := \frac{V}{N_4}$ $m := \frac{W}{N_5}$ $n := \frac{X}{N_6}$ $o := \frac{Y}{N_7}$ $p := \frac{Z}{N_8}$

Descriptions.

$AC := \frac{N_2 - N_1}{N_2}$ $EH := \sqrt{AB^2 + AC^2}$

$AF := \frac{AC}{2}$ $EF := \frac{EH - AB}{2}$

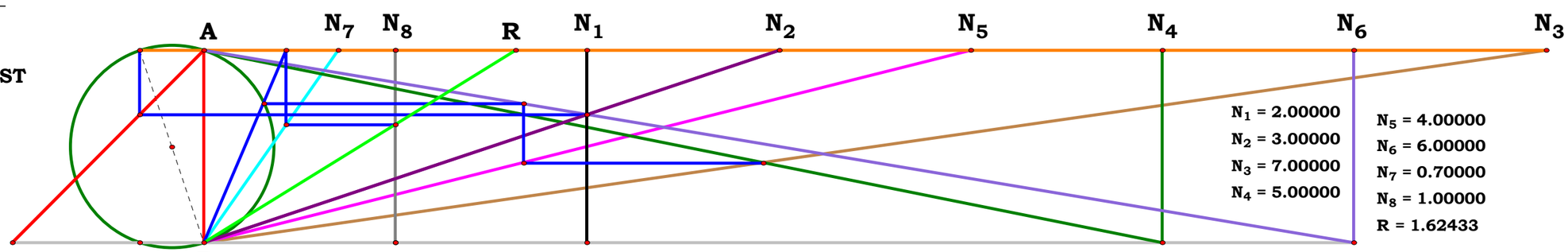
$ST := \frac{N_4}{N_3 + N_4}$ $BT := N_5 \cdot ST$

$PT := \frac{N_6 - BT}{N_6}$

$GH := PT + EF$

$GJ := \sqrt{GH \cdot (EH - GH)}$

$AK := \frac{GJ - AF}{PT}$ $KO := \frac{N_7 - AK}{N_7}$ $R := \frac{N_8}{AB - KO}$ $R = 1.903602$



$N_1 = 2.00000$
$N_2 = 3.00000$
$N_3 = 7.00000$
$N_4 = 5.00000$

$N_5 = 4.00000$
$N_6 = 6.00000$
$N_7 = 0.70000$
$N_8 = 1.00000$
$R = 1.62433$

B

$$\frac{2 \cdot N_2 \cdot N_7 \cdot N_8 \cdot ((N_3 \cdot N_6 - N_4 \cdot N_5) + N_4 \cdot N_6)}{N_6 \cdot (N_1 - N_2) \cdot (N_3 + N_4) + \sqrt{(N_6 \cdot (N_1 - N_2) \cdot (N_3 + N_4))^2 + 4 \cdot N_2^2 \cdot N_4 \cdot N_5 \cdot ((N_3 \cdot N_6 - N_4 \cdot N_5) + N_4 \cdot N_6)}} - R = 0.00000$$

Definitions.

$$R - \frac{2 \cdot N_2 \cdot N_7 \cdot N_8 \cdot (N_3 \cdot N_6 - N_4 \cdot N_5 + N_4 \cdot N_6)}{\sqrt{N_6^2 \cdot (N_3 + N_4)^2 \cdot (N_1 - N_2)^2 + 4 \cdot N_2^2 \cdot N_4 \cdot N_5 \cdot (N_3 \cdot N_6 - N_4 \cdot N_5 + N_4 \cdot N_6)} + N_6 \cdot (N_3 + N_4) \cdot (N_1 - N_2)} = 0$$

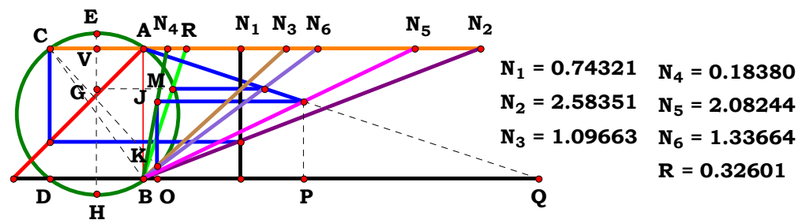
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$ $N_6 - \frac{N_u}{F} = 0$ $N_7 - \frac{N_u}{G} = 0$ $N_8 - \frac{N_u}{H} = 0$

$N_1 - \frac{S}{h} = 0$ $N_2 - \frac{T}{j} = 0$ $N_3 - \frac{U}{k} = 0$ $N_4 - \frac{V}{l} = 0$ $N_5 - \frac{W}{m} = 0$ $N_6 - \frac{X}{n} = 0$ $N_7 - \frac{Y}{o} = 0$ $N_8 - \frac{Z}{p} = 0$

$$R - \frac{2 \cdot A \cdot N_u^2 \cdot (C \cdot E - C \cdot F + D \cdot E)}{\left[G \cdot H \cdot \left[\sqrt{E^2 \cdot (C + D)^2 \cdot (A - B)^2 + 4 \cdot A^2 \cdot C \cdot F \cdot [C \cdot (E - F) + D \cdot E]} - E \cdot (C + D) \cdot (A - B)\right]\right]} = 0$$

$$R - \frac{2 \cdot T \cdot Y \cdot Z \cdot h \cdot (U \cdot X \cdot l \cdot m - V \cdot W \cdot k \cdot n + V \cdot X \cdot k \cdot m)}{o \cdot p \cdot \left[\sqrt{X^2 \cdot m^2 \cdot (U \cdot l + V \cdot k)^2 \cdot (S \cdot j - T \cdot h)^2 + 4 \cdot X \cdot T^2 \cdot V \cdot W \cdot h^2 \cdot k \cdot m \cdot n \cdot (U \cdot l + V \cdot k) - 4 \cdot T^2 \cdot V^2 \cdot W^2 \cdot h^2 \cdot k^2 \cdot n^2} - X \cdot m \cdot (U \cdot l + V \cdot k) \cdot (T \cdot h - S \cdot j)\right]} = 0$$

4RST6AB6R9



$N_1 = 0.74321$ $N_4 = 0.18380$
$N_2 = 2.58351$ $N_5 = 2.08244$
$N_3 = 1.09663$ $N_6 = 1.33664$
$R = 0.32601$

Unit. $AB := 1$ **Given.** $N_1 := .74321$ $N_2 := 2.58351$ $N_3 := 1.09663$ $N_4 := .18380$ $N_5 := 2.08244$ $N_6 := 1.33664$

Descriptions.

$$AC := \frac{N_2 - N_1}{N_2} \qquad EH := \sqrt{AB^2 + AC^2}$$

$$AF := \frac{AC}{2} \qquad EF := \frac{EH - AB}{2}$$

$$BN_3 := \sqrt{N_3^2 + AB^2} \qquad CN_3 := N_3 + AC$$

$$KN_3 := \frac{N_3 \cdot CN_3}{BN_3}$$

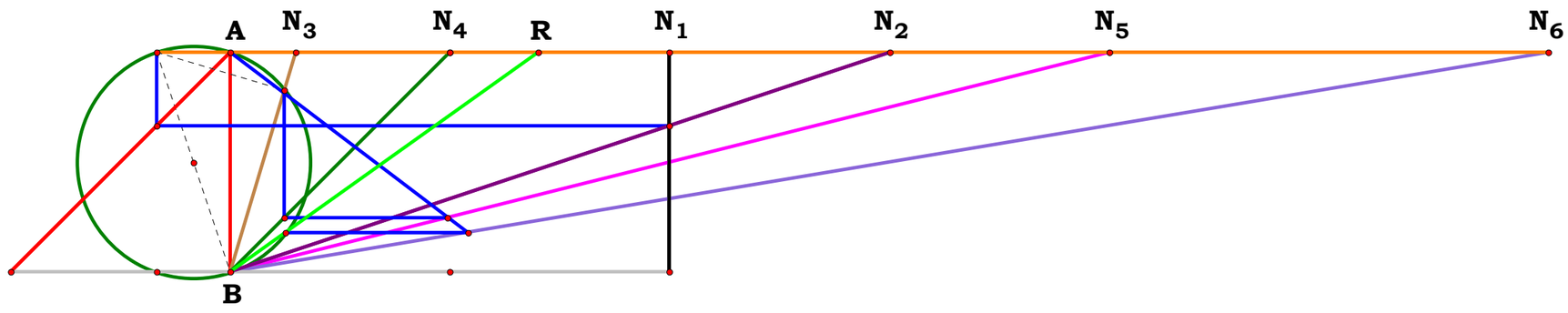
$$BO := \frac{N_3 \cdot (BN_3 - KN_3)}{BN_3}$$

$$JO := \frac{BO}{N_4} \qquad BP := N_5 \cdot JO$$

$$BQ := \frac{BP \cdot AB}{AB - JO} \qquad FG := \frac{N_6}{BQ + N_6}$$

$$EG := FG + EF \qquad GM := \sqrt{EG \cdot (EH - EG)}$$

$$R := \frac{GM - AF}{AB - FG} \qquad R = 0.32601$$

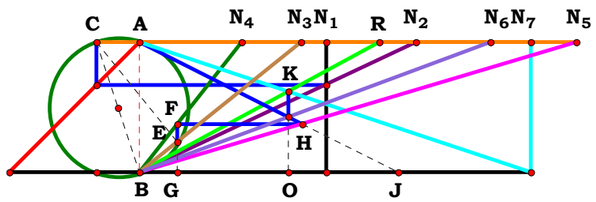


$N_1 = 2.00000$ $N_4 = 1.00000$ $AB = 1.00000$ $EF = 0.02705$ $BO = 0.24771$ $FG = 0.82000$
$N_2 = 3.00000$ $N_5 = 4.00000$ $AC = 0.33333$ $BN_3 = 1.04403$ $JO = 0.24771$ $EG = 0.84705$
$N_3 = 0.30000$ $N_6 = 6.00000$ $EH = 1.05409$ $CN_3 = 0.63333$ $BP = 0.99083$ $GM = 0.41878$
$R = 1.40064$ $AF = 0.16667$ $KN_3 = 0.18199$ $BQ = 1.31707$ $R - \frac{GM - AF}{AB - FG} = 0.00000$

Definitions.

$$R - \frac{\sqrt{N_6^2 \cdot (N_1 - N_2)^2 \cdot \left[N_3^2 \cdot (N_1 - N_2 - N_2 \cdot N_4) + N_2 \cdot (N_3 - N_4)\right]^2 + N_3^2 \cdot N_5^2 \cdot (N_1 - N_2)^2 \cdot (N_2 + N_1 \cdot N_3 - N_2 \cdot N_3)^2 \ \ldots \ \ldots}{+ \ -2 \cdot N_3 \cdot N_5 \cdot N_6 \cdot \left(N_1^2 - 2 \cdot N_1 \cdot N_2 + 3 \cdot N_2^2\right) \cdot (N_2 + N_1 \cdot N_3 - N_2 \cdot N_3) \cdot \left[N_3^2 \cdot (N_1 - N_2 - N_2 \cdot N_4) + N_2 \cdot (N_3 - N_4)\right]}$$
$$+ \ (N_1 - N_2) \cdot \left[(N_1 - N_2) \cdot (N_5 - N_6) \cdot N_3^2 + N_2 \cdot \left[N_6 \cdot \left(N_3^2 \cdot N_4 - N_3 + N_4\right) + N_3 \cdot N_5\right]\right]$$
$$2 \cdot N_2 \cdot N_3 \cdot N_5 \cdot (N_2 + N_1 \cdot N_3 - N_2 \cdot N_3)$$
$$= 0$$

4RST6AB6R10



$N_1 = 1.43090$ $N_3 = 1.24192$ $N_5 = 3.35128$ $N_7 = 3.00259$

$N_2 = 2.11859$ $N_4 = 0.78432$ $N_6 = 2.69265$ $R = 1.84291$

Unit. $AB := 1$ **Given.** $N_1 := 1.43090$ $N_2 := 2.11859$ $N_3 := 1.24192$ $N_4 := .78432$

$N_5 := 3.35128$ $N_6 := 2.69265$ $N_7 := 3.00259$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $F := \frac{N_u}{N_6}$ $G := \frac{N_u}{N_7}$

$T := 19$ $U := 18$ $V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$j := \frac{T}{N_1}$ $k := \frac{U}{N_2}$ $l := \frac{V}{N_3}$ $m := \frac{W}{N_4}$ $n := \frac{X}{N_5}$ $o := \frac{Y}{N_6}$ $p := \frac{Z}{N_7}$

Descriptions.

$AC := \frac{N_2 - N_1}{N_2}$ $BN_3 := \sqrt{AB^2 + N_3^2}$

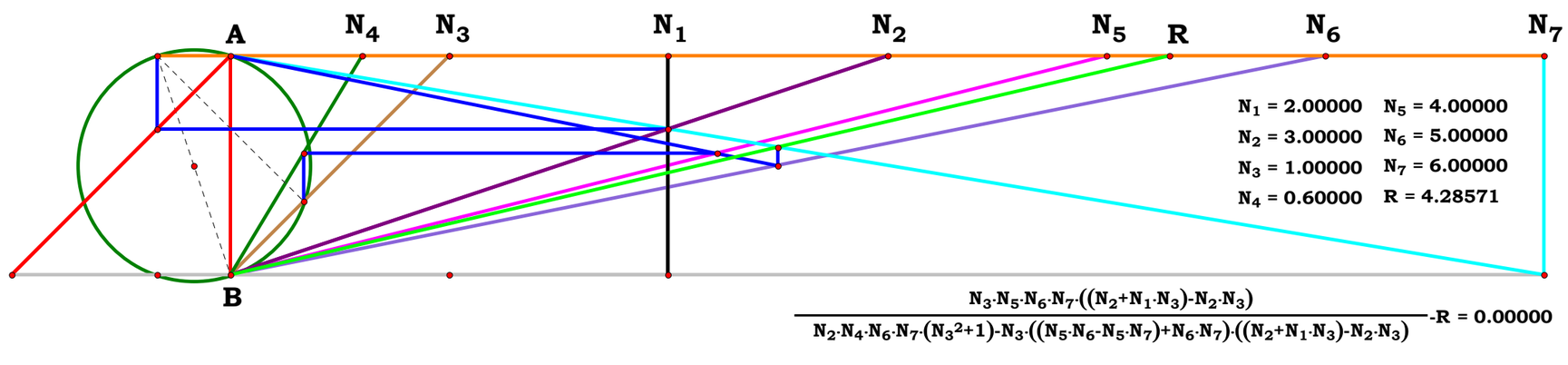
$CN_3 := N_3 + AC$ $EN_3 := \frac{N_3 \cdot CN_3}{BN_3}$

$BG := \frac{N_3 \cdot (BN_3 - EN_3)}{BN_3}$ $FG := \frac{BG}{N_4}$

$FH := N_5 \cdot FG$ $BJ := \frac{FH}{(AB - FG)}$

$BO := \frac{N_6 \cdot BJ}{N_6 + BJ}$ $KO := \frac{N_7 - BO}{N_7}$

$R := \frac{BO}{KO}$ $R = 1.842898$



$N_1 = 2.00000$ $N_5 = 4.00000$

$N_2 = 3.00000$ $N_6 = 5.00000$

$N_3 = 1.00000$ $N_7 = 6.00000$

$N_4 = 0.60000$ $R = 4.28571$

$$\frac{N_3 \cdot N_5 \cdot N_6 \cdot N_7 \cdot ((N_2 + N_1 \cdot N_3) - N_2 \cdot N_3)}{N_2 \cdot N_4 \cdot N_6 \cdot N_7 \cdot (N_3^2 + 1) - N_3 \cdot ((N_5 \cdot N_6 - N_5 \cdot N_7) + N_6 \cdot N_7) \cdot ((N_2 + N_1 \cdot N_3) - N_2 \cdot N_3)} - R = 0.00000$$

Definitions.

$$R - \frac{N_3 \cdot N_5 \cdot N_6 \cdot N_7 \cdot (N_2 + N_1 \cdot N_3 - N_2 \cdot N_3)}{N_2 \cdot N_4 \cdot N_6 \cdot N_7 \cdot (N_3^2 + 1) - N_3 \cdot (N_5 \cdot N_6 - N_5 \cdot N_7 + N_6 \cdot N_7) \cdot (N_2 + N_1 \cdot N_3 - N_2 \cdot N_3)} = 0$$

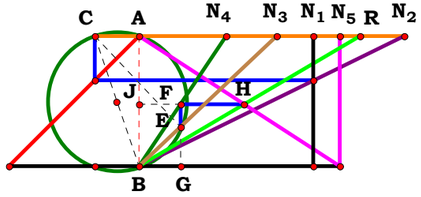
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$ $N_6 - \frac{N_u}{F} = 0$ $N_7 - \frac{N_u}{G} = 0$

$$R - \frac{D \cdot N_u \cdot (A \cdot C - A \cdot N_u + B \cdot N_u)}{E \cdot [A \cdot N_u^2 + (A \cdot D - B \cdot D) \cdot N_u + A \cdot C \cdot (C - D)] + D \cdot (F - G) \cdot (A \cdot C - A \cdot N_u + B \cdot N_u)} = 0$$

$N_1 - \frac{T}{j} = 0$ $N_2 - \frac{U}{k} = 0$ $N_3 - \frac{V}{l} = 0$ $N_4 - \frac{W}{m} = 0$ $N_5 - \frac{X}{n} = 0$ $N_6 - \frac{Y}{o} = 0$ $N_7 - \frac{Z}{p} = 0$

$$R - \frac{V \cdot X \cdot Y \cdot Z \cdot m \cdot (T \cdot V \cdot k - U \cdot V \cdot j + U \cdot j \cdot l)}{W \cdot U \cdot Y \cdot Z \cdot j \cdot n \cdot (V^2 + l^2) - V \cdot m \cdot (X \cdot Y \cdot p - X \cdot Z \cdot o + Y \cdot Z \cdot n) \cdot (T \cdot V \cdot k - U \cdot V \cdot j + U \cdot j \cdot l)} = 0$$

4RST6AB6R11



$N_1 = 1.33405$
$N_2 = 2.03142$
$N_3 = 1.05789$
$N_4 = 0.66809$
$N_5 = 1.54004$
$R = 1.69633$

Unit. $AB := 1$ **Given.** $N_1 := 1.33405$ $N_2 := 2.03142$ $N_3 := 1.05789$

$N_4 := .66809$ $N_5 := 1.54004$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$

$V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$l := \frac{V}{N_1}$ $m := \frac{W}{N_2}$ $n := \frac{X}{N_3}$ $o := \frac{Y}{N_4}$ $p := \frac{Z}{N_5}$

Descriptions.

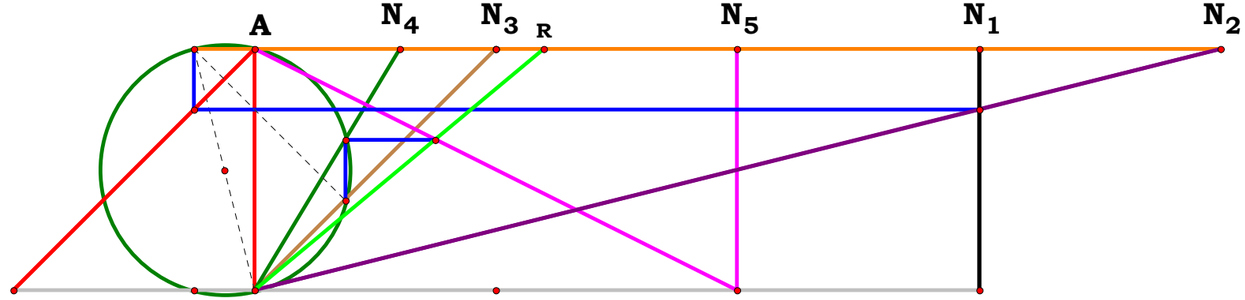
$$AC := \frac{N_2 - N_1}{N_2} \qquad BN_3 := \sqrt{N_3^2 + AB^2}$$

$$CN_3 := N_3 + AC \qquad EN_3 := \frac{N_3 \cdot CN_3}{BN_3}$$

$$BG := \frac{N_3 \cdot (BN_3 - EN_3)}{BN_3} \qquad FG := \frac{BG}{N_4}$$

$$HJ := N_5 \cdot (AB - FG) \qquad R := \frac{HJ}{FG}$$

$R = 1.696324$



Definitions.

$$R - \frac{N_2 \cdot N_4 \cdot N_5 \cdot (N_3^2 + 1) - N_3 \cdot N_5 \cdot (N_2 + N_1 \cdot N_3 - N_2 \cdot N_3)}{N_3 \cdot (N_2 + N_1 \cdot N_3 - N_2 \cdot N_3)} = 0$$

$$N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0 \quad N_4 - \frac{N_u}{D} = 0 \quad N_5 - \frac{N_u}{E} = 0$$

$$R - \frac{N_u \cdot [A \cdot C^2 + A \cdot N_u^2 - A \cdot C \cdot D + D \cdot N_u \cdot (A - B)]}{A \cdot C \cdot D \cdot E - D \cdot E \cdot N_u \cdot (A - B)} = 0$$

$$N_1 - \frac{V}{l} = 0 \quad N_2 - \frac{W}{m} = 0 \quad N_3 - \frac{X}{n} = 0 \quad N_4 - \frac{Y}{o} = 0 \quad N_5 - \frac{Z}{p} = 0$$

$$R - \frac{Z \cdot [Y \cdot W \cdot l \cdot (X^2 + n^2) - X \cdot o \cdot (V \cdot X \cdot m - W \cdot X \cdot l + W \cdot l \cdot n)]}{X \cdot o \cdot p \cdot (V \cdot X \cdot m - W \cdot X \cdot l + W \cdot l \cdot n)} = 0$$

B

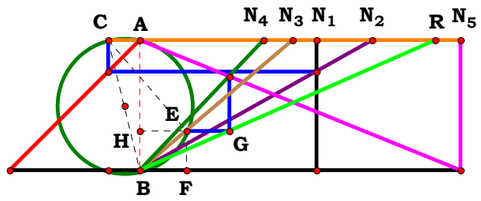
$N_1 = 3.00000$ $N_4 = 0.60000$

$N_2 = 4.00000$ $N_5 = 2.00000$

$N_3 = 1.00000$ $R = 1.20000$

$$\frac{N_2 \cdot N_4 \cdot N_5 \cdot (N_3^2 + 1) - N_3 \cdot N_5 \cdot ((N_2 + N_1 \cdot N_3) - N_2 \cdot N_3)}{N_3 \cdot ((N_2 + N_1 \cdot N_3) - N_2 \cdot N_3)} - R = 0.00000$$

4RST6AB6R12



$N_1 = 1.35342$
$N_2 = 1.77959$
$N_3 = 1.17412$
$N_4 = 0.94898$
$N_5 = 2.46019$
$R = 2.26603$

Unit. $AB := 1$ **Given.** $N_1 := 1.35342$ $N_2 := 1.77959$ $N_3 := 1.17412$

$N_4 := .94898$ $N_5 := 2.46019$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$

$V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$l := \frac{V}{N_1}$ $m := \frac{W}{N_2}$ $n := \frac{X}{N_3}$ $o := \frac{Y}{N_4}$ $p := \frac{Z}{N_5}$

Descriptions.

$AC := \frac{N_2 - N_1}{N_2}$ $BN_3 := \sqrt{N_3^2 + AB^2}$

$CN_3 := N_3 + AC$ $EN_3 := \frac{N_3 \cdot CN_3}{BN_3}$

$EF := \frac{(BN_3 - EN_3)}{BN_3}$ $HG := \frac{N_5 \cdot N_4}{N_5 + N_4}$

$R := \frac{HG}{EF}$ $R = 2.266037$

Definitions.

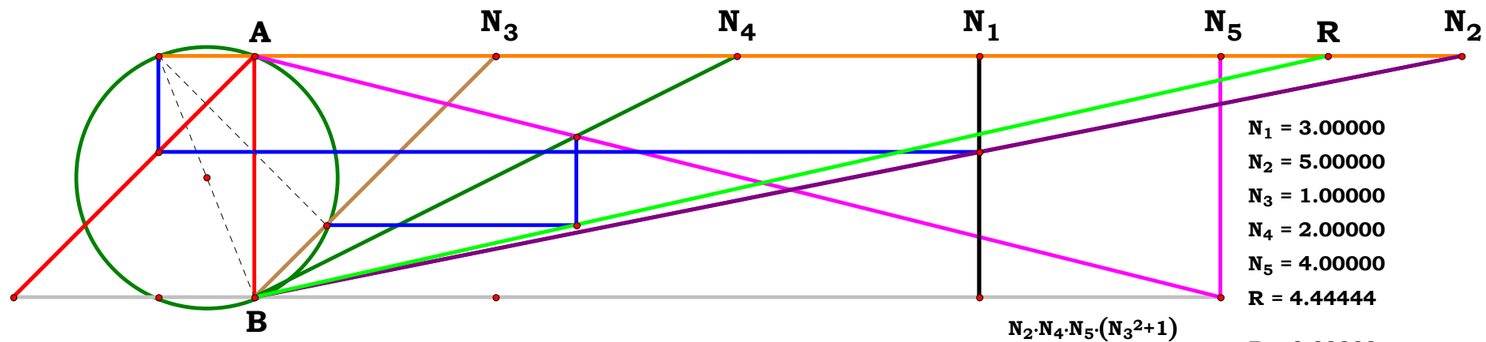
$$R - \frac{N_2 \cdot N_4 \cdot N_5 \cdot (N_3^2 + 1)}{(N_4 + N_5) \cdot (N_2 + N_1 \cdot N_3 - N_2 \cdot N_3)} = 0$$

$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$

$$R - \frac{A \cdot N_u \cdot (C^2 + N_u^2)}{C \cdot (D + E) \cdot (A \cdot C - A \cdot N_u + B \cdot N_u)} = 0$$

$N_1 - \frac{V}{l} = 0$ $N_2 - \frac{W}{m} = 0$ $N_3 - \frac{X}{n} = 0$ $N_4 - \frac{Y}{o} = 0$ $N_5 - \frac{Z}{p} = 0$

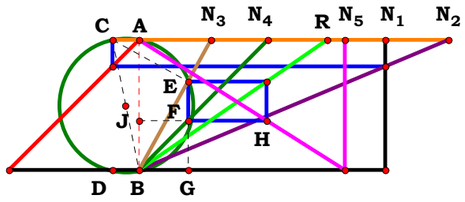
$$R - \frac{W \cdot Y \cdot Z \cdot l \cdot (X^2 + n^2)}{n \cdot (Y \cdot p + Z \cdot o) \cdot (V \cdot X \cdot m - W \cdot X \cdot l + W \cdot l \cdot n)} = 0$$



$N_1 = 3.00000$
$N_2 = 5.00000$
$N_3 = 1.00000$
$N_4 = 2.00000$
$N_5 = 4.00000$
$R = 4.44444$

$\frac{N_2 \cdot N_4 \cdot N_5 \cdot (N_3^2+1)}{(N_4+N_5) \cdot ((N_2+N_1 \cdot N_3) - N_2 \cdot N_3)} - R = 0.00000$

4RST6AB6R13



$N_1 = 1.88613$
$N_2 = 2.37042$
$N_3 = 0.55423$
$N_4 = 0.98772$
$N_5 = 1.57878$
$R = 1.44137$

Unit. $AB := 1$ **Given.** $N_1 := 1.88613$ $N_2 := 2.37042$ $N_3 := .55423$ $N_4 := .98772$ $N_5 := 1.57878$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$

$V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$l := \frac{V}{N_1}$ $m := \frac{W}{N_2}$ $n := \frac{X}{N_3}$ $o := \frac{Y}{N_4}$ $p := \frac{Z}{N_5}$

Descriptions.

$AC := \frac{N_2 - N_1}{N_2}$ $BN_3 := \sqrt{N_3^2 + AB^2}$

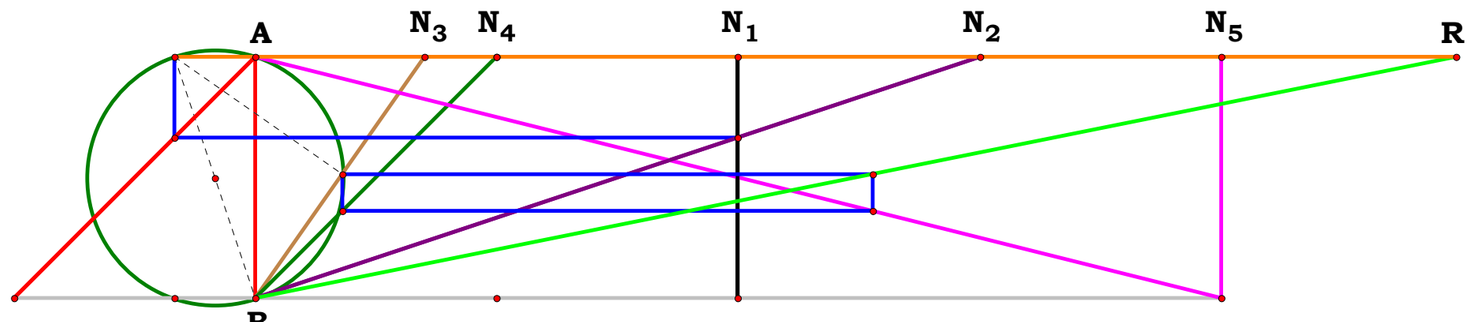
$CN_3 := N_3 + AC$ $EN_3 := \frac{N_3 \cdot CN_3}{BN_3}$

$BG := \frac{N_3 \cdot (BN_3 - EN_3)}{BN_3}$ $FG := \frac{BG}{N_4}$

$JH := N_5 \cdot (AB - FG)$

$EG := \frac{BN_3 - EN_3}{BN_3}$

$R := \frac{JH}{EG}$ $R = 1.44137$



$N_1 = 2.00000$ $N_4 = 1.00000$ $\frac{N_2 \cdot N_4 \cdot N_5 \cdot (N_3^2+1) - N_3 \cdot N_5 \cdot ((N_2+N_1 \cdot N_3) - N_2 \cdot N_3)}{N_4 \cdot ((N_2+N_1 \cdot N_3) - N_2 \cdot N_3)} - R = 0.00000$

$N_2 = 3.00000$ $N_5 = 4.00000$

$N_3 = 0.70000$ $R = 4.97391$

Definitions.

$$R - \frac{N_2 \cdot N_4 \cdot N_5 \cdot \left(N_3^2 + 1\right) - N_3 \cdot N_5 \cdot \left(N_2 + N_1 \cdot N_3 - N_2 \cdot N_3\right)}{N_4 \cdot \left(N_2 + N_1 \cdot N_3 - N_2 \cdot N_3\right)} = 0$$

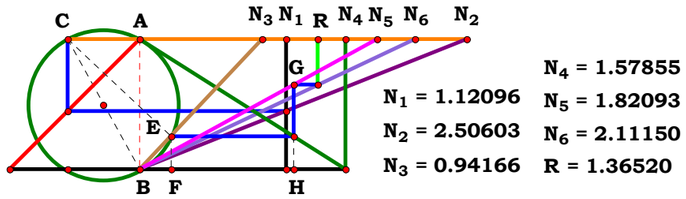
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$

$$R - \frac{N_u \cdot \left[A \cdot \left(C^2 - D \cdot C + N_u^2\right) + D \cdot N_u \cdot (A - B)\right]}{A \cdot C^2 \cdot E - C \cdot E \cdot N_u \cdot (A - B)} = 0$$

$N_1 - \frac{V}{l} = 0$ $N_2 - \frac{W}{m} = 0$ $N_3 - \frac{X}{n} = 0$ $N_4 - \frac{Y}{o} = 0$ $N_5 - \frac{Z}{p} = 0$

$$R - \frac{Z \cdot \left[Y \cdot W \cdot l \cdot \left(X^2 + n^2\right) - X \cdot o \cdot (V \cdot X \cdot m - W \cdot X \cdot l + W \cdot l \cdot n)\right]}{Y \cdot n \cdot p \cdot (V \cdot X \cdot m - W \cdot X \cdot l + W \cdot l \cdot n)} = 0$$

4RST6AB6R14



$N_1 = 1.12096$ $N_4 = 1.57855$
$N_2 = 2.50603$ $N_5 = 1.82093$
$N_3 = 0.94166$ $N_6 = 2.11150$
$R = 1.36520$

Unit. $AB := 1$ **Given.** $N_1 := 1.12096$ $N_2 := 2.50603$ $N_3 := .94166$

$N_4 := 1.57855$ $N_5 := 1.82093$ $N_6 := 2.11150$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $F := \frac{N_u}{N_6}$

$U := 18$ $V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$k := \frac{U}{N_1}$ $l := \frac{V}{N_2}$ $m := \frac{W}{N_3}$ $n := \frac{X}{N_4}$ $o := \frac{Y}{N_5}$ $p := \frac{Z}{N_6}$

Descriptions.

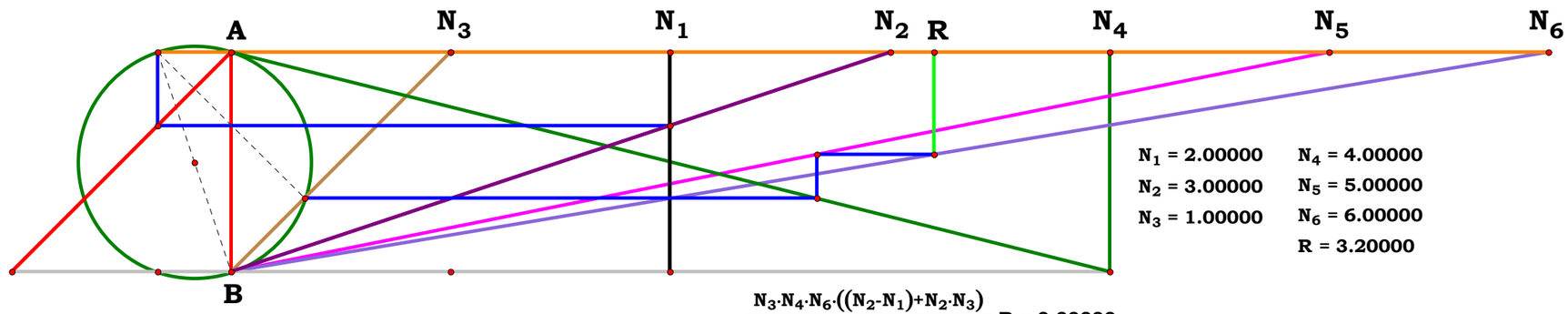
$AC := \frac{N_2 - N_1}{N_2}$ $BN_3 := \sqrt{N_3^2 + AB^2}$

$CN_3 := N_3 + AC$ $EN_3 := \frac{N_3 \cdot CN_3}{BN_3}$

$EF := \frac{BN_3 - EN_3}{BN_3}$ $BH := N_4 \cdot (AB - EF)$

$GH := \frac{BH}{N_5}$ $R := N_6 \cdot GH$

$R = 1.365198$



$N_1 = 2.00000$ $N_4 = 4.00000$
$N_2 = 3.00000$ $N_5 = 5.00000$
$N_3 = 1.00000$ $N_6 = 6.00000$
$R = 3.20000$

$\frac{N_3 \cdot N_4 \cdot N_6 \cdot ((N_2 - N_1) + N_2 \cdot N_3)}{N_2 \cdot N_5 \cdot (N_3^2 + 1)} - R = 0.00000$

Definitions.

$$R - \frac{N_3 \cdot N_4 \cdot N_6 \cdot \left(N_2 - N_1 + N_2 \cdot N_3\right)}{N_2 \cdot N_5 \cdot \left(N_3^2 + 1\right)} = 0$$

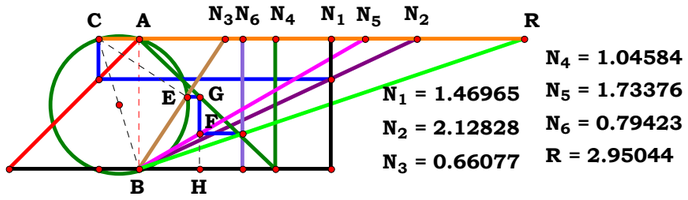
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$ $N_6 - \frac{N_u}{F} = 0$

$$R - \frac{E \cdot N_u^2 \cdot \left[C \cdot (A - B) + A \cdot N_u\right]}{F \cdot \left[A \cdot D \cdot \left(C^2 + N_u^2\right)\right]} = 0$$

$N_1 - \frac{U}{k} = 0$ $N_2 - \frac{V}{l} = 0$ $N_3 - \frac{W}{m} = 0$ $N_4 - \frac{X}{n} = 0$ $N_5 - \frac{Y}{o} = 0$ $N_6 - \frac{Z}{p} = 0$

$$R - \frac{W \cdot X \cdot Z \cdot o \cdot (V \cdot W \cdot k - U \cdot l \cdot m + V \cdot k \cdot m)}{p \cdot \left(V \cdot Y \cdot k \cdot n \cdot W^2 + V \cdot Y \cdot k \cdot n \cdot m^2\right)} = 0$$

4RST6AB6R15



Unit. $AB := 1$ Given. $N_1 := 1.46965$ $N_2 := 2.12828$ $N_3 := .66077$

$N_4 := 1.04584$ $N_5 := 1.73376$ $N_6 := .79423$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$ $E := \frac{N_u}{N_5}$ $F := \frac{N_u}{N_6}$

$U := 18$ $V := 17$ $W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$k := \frac{U}{N_1}$ $l := \frac{V}{N_2}$ $m := \frac{W}{N_3}$ $n := \frac{X}{N_4}$ $o := \frac{Y}{N_5}$ $p := \frac{Z}{N_6}$

Descriptions.

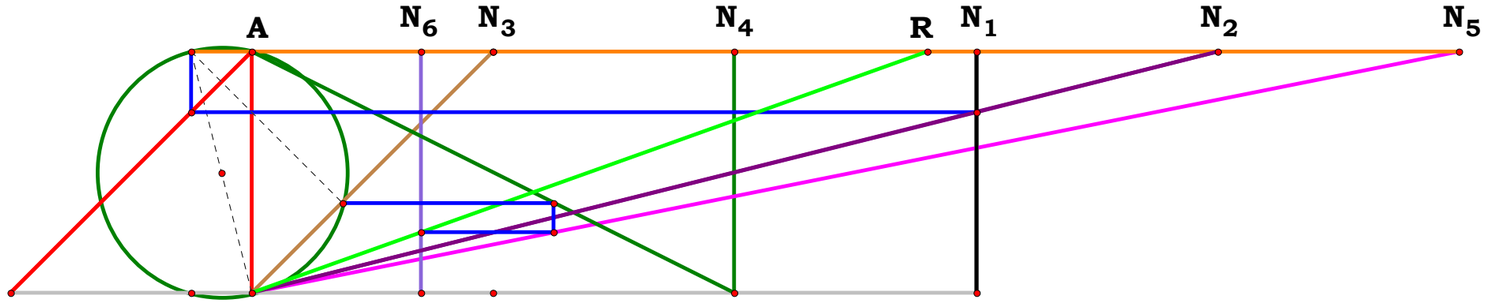
$AC := \frac{N_2 - N_1}{N_2}$ $BN_3 := \sqrt{N_3^2 + AB^2}$

$CN_3 := N_3 + AC$ $EN_3 := \frac{N_3 \cdot CN_3}{BN_3}$

$GH := \frac{BN_3 - EN_3}{BN_3}$ $BH := N_4 \cdot (AB - GH)$

$FH := \frac{BH}{N_5}$ $R := \frac{N_6}{FH}$

$R = 2.950417$



Definitions.

$$R - \frac{N_2 \cdot N_5 \cdot N_6 \cdot \left(N_3^2 + 1\right)}{N_3 \cdot N_4 \cdot \left(N_2 - N_1 + N_2 \cdot N_3\right)} = 0$$

$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$ $N_5 - \frac{N_u}{E} = 0$ $N_6 - \frac{N_u}{F} = 0$

$$R - \frac{A \cdot D \cdot \left(C^2 + N_u^2\right)}{A \cdot E \cdot F \cdot N_u + C \cdot E \cdot F \cdot (A - B)} = 0$$

$N_1 - \frac{U}{k} = 0$ $N_2 - \frac{V}{l} = 0$ $N_3 - \frac{W}{m} = 0$ $N_4 - \frac{X}{n} = 0$ $N_5 - \frac{Y}{o} = 0$ $N_6 - \frac{Z}{p} = 0$

$$R - \frac{V \cdot Y \cdot Z \cdot k \cdot n \cdot \left(W^2 + m^2\right)}{o \cdot p \cdot W \cdot X \cdot (V \cdot W \cdot k - U \cdot l \cdot m + V \cdot k \cdot m)} = 0$$

B

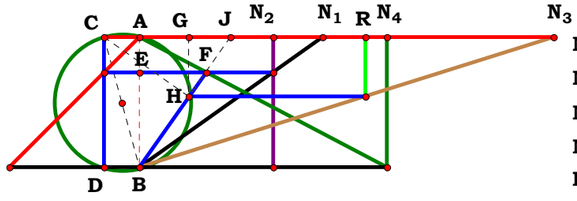
$N_1 = 3.00000$ $N_4 = 2.00000$ $\frac{N_2 \cdot N_5 \cdot N_6 \cdot (N_3^2+1)}{N_3 \cdot N_4 \cdot ((N_2-N_1)+N_2 \cdot N_3)} - R = 0.00000$

$N_2 = 4.00000$ $N_5 = 5.00000$

$N_3 = 1.00000$ $N_6 = 0.70000$

$R = 2.80000$

4RST7AB1R0



$N_1 = 1.40185$
$N_2 = 1.02410$
$N_3 = 3.17907$
$N_4 = 1.89818$
$R = 1.73081$

Unit. $AB := 1$ **Given.** $N_1 := 1.40185$ $N_2 := 1.02410$ $N_3 := 3.17907$

$N_4 := 1.89818$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

$AC := \frac{N_1 - N_2}{N_1}$ $AE := \frac{N_1 - N_2}{N_1}$ $EF := N_4 \cdot AE$ $AJ := \frac{EF}{AB - AE}$

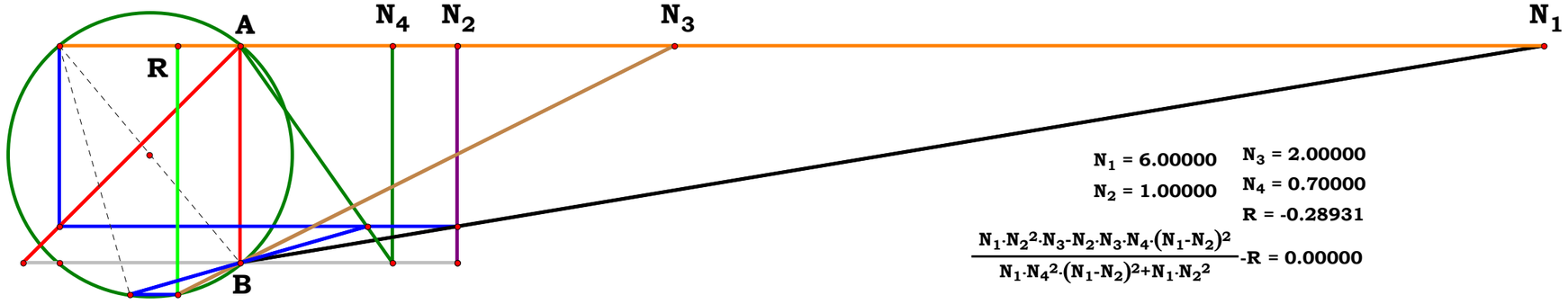
$BJ := \sqrt{AB^2 + AJ^2}$ $HJ := \frac{AJ + AC}{BJ}$

$HG := \frac{AJ \cdot HJ}{BJ}$ $R := N_3 \cdot (AB - HG)$

$R = 1.730791$

Definitions.

This template has two opening variables.



$N_1 = 6.00000$ $N_3 = 2.00000$

$N_2 = 1.00000$ $N_4 = 0.70000$

$R = -0.28931$

$\frac{N_1 \cdot N_2^2 \cdot N_3 - N_2 \cdot N_3 \cdot N_4 \cdot (N_1 - N_2)^2}{N_1 \cdot N_4^2 \cdot (N_1 - N_2)^2 + N_1 \cdot N_2^2} - R = 0.00000$

$$R - \frac{N_3 \cdot (AE - 1) \cdot \left(AE + AC \cdot AE \cdot N_4 - 1\right)}{AE^2 \cdot N_4^2 + AE^2 - 2 \cdot AE + 1} = 0$$

$$R - \frac{N_1 \cdot N_2^2 \cdot N_3 - N_2 \cdot N_3 \cdot N_4 \cdot \left(N_1 - N_2\right)^2}{N_1 \cdot N_4^2 \cdot \left(N_1 - N_2\right)^2 + N_1 \cdot N_2^2} = 0$$

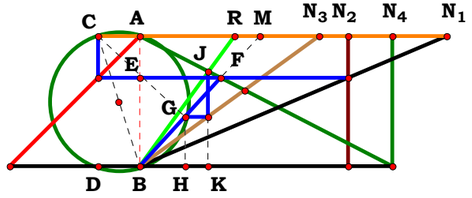
$$N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0 \quad N_4 - \frac{N_u}{D} = 0$$

$$R - \frac{A \cdot D \cdot N_u \cdot \left[A \cdot B \cdot \left(D + 2 \cdot N_u\right) - N_u \cdot \left(A^2 + B^2\right)\right]}{B \cdot C \cdot \left[A^2 \cdot \left(D^2 + N_u^2\right) - B \cdot N_u^2 \cdot (2 \cdot A - B)\right]} = 0$$

$$N_1 - \frac{W}{m} = 0 \quad N_2 - \frac{X}{n} = 0 \quad N_3 - \frac{Y}{o} = 0 \quad N_4 - \frac{Z}{p} = 0$$

$$R - \frac{X \cdot Y \cdot m \cdot p \cdot \left[W \cdot X \cdot m \cdot n \cdot p - Z \cdot (W \cdot n - X \cdot m)^2\right]}{W \cdot n \cdot o \cdot \left[Z^2 \cdot (W \cdot n - X \cdot m)^2 + X^2 \cdot m^2 \cdot p^2\right]} = 0$$

4RST7AB1R1



$N_1 = 2.35105$
$N_2 = 1.59556$
$N_3 = 1.37752$
$N_4 = 1.93693$
$R = 0.72529$

Unit. $AB := 1$ Given. $N_1 := 2.35105$ $N_2 := 1.59556$ $N_3 := 1.37752$

$N_4 := 1.93693$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

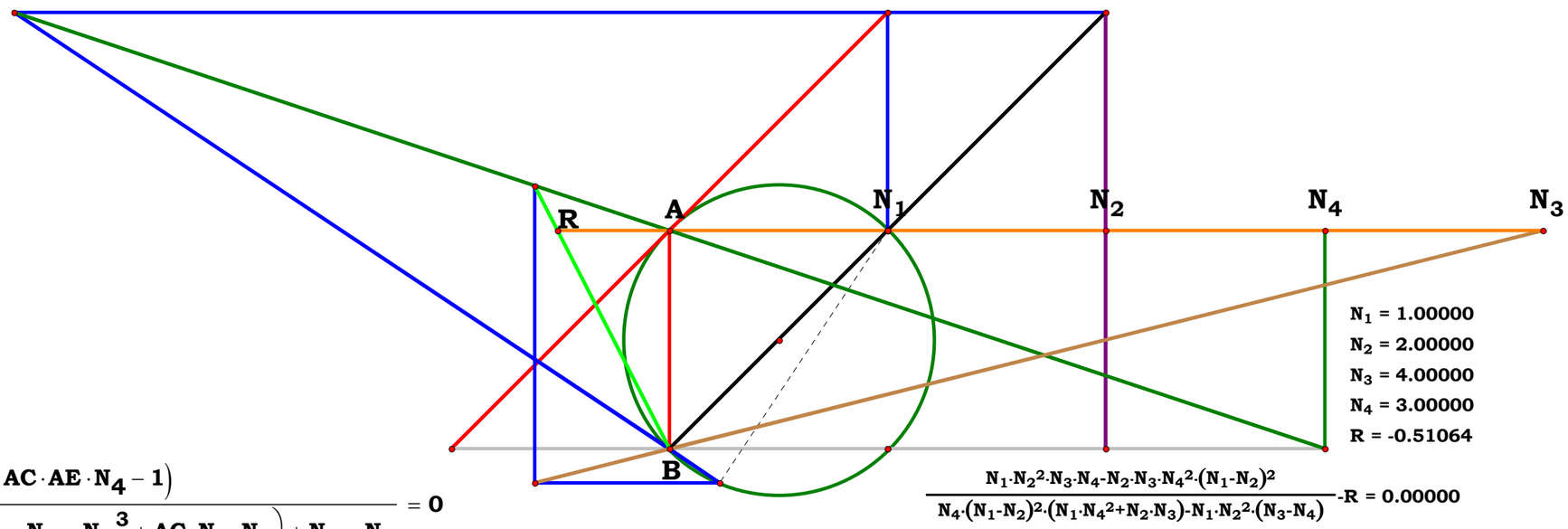
$AC := \frac{N_1 - N_2}{N_1}$ $AE := \frac{N_1 - N_2}{N_1}$

$EF := N_4 \cdot AE$ $AM := \frac{EF}{AB - AE}$

$BM := \sqrt{AM^2 + AB^2}$ $FM := \frac{AM \cdot (AM + AC)}{BM}$

$BG := BM - FM$ $GH := \frac{BG}{BM}$ $BK := N_3 \cdot GH$

$JK := \frac{N_4 - BK}{N_4}$ $R := \frac{BK}{JK}$ $R = 0.725292$



$N_1 = 1.00000$
$N_2 = 2.00000$
$N_3 = 4.00000$
$N_4 = 3.00000$
$R = -0.51064$

$\frac{N_1 \cdot N_2^2 \cdot N_3 \cdot N_4 - N_2 \cdot N_3 \cdot N_4^2 \cdot (N_1 - N_2)^2}{N_4 \cdot (N_1 - N_2)^2 \cdot (N_1 \cdot N_4^2 + N_2 \cdot N_3) - N_1 \cdot N_2^2 \cdot (N_3 - N_4)} - R = 0.00000$

Definitions.

$$R - \frac{N_3 \cdot N_4 \cdot (AE - 1) \cdot \left(AE + AC \cdot AE \cdot N_4 - 1\right)}{AE \cdot \left(2 \cdot N_3 - 2 \cdot N_4 + AC \cdot N_3 \cdot N_4\right) - AE^2 \cdot \left(N_3 - N_4 - N_4^3 + AC \cdot N_3 \cdot N_4\right) + N_4 - N_3} = 0$$

$$R - \frac{N_1 \cdot N_2^2 \cdot N_3 \cdot N_4 - N_2 \cdot N_3 \cdot N_4^2 \cdot (N_1 - N_2)^2}{N_4 \cdot (N_1 - N_2)^2 \cdot \left(N_1 \cdot N_4^2 + N_2 \cdot N_3\right) - N_1 \cdot N_2^2 \cdot (N_3 - N_4)} = 0$$

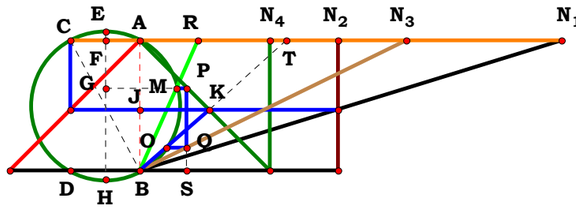
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{A \cdot D \cdot N_u \cdot \left[A \cdot B \cdot D - N_u \cdot (A - B)^2\right]}{N_u^2 \cdot B \cdot C \cdot (A - B)^2 + N_u \cdot A \cdot D^2 \cdot (A - B)^2 + A^2 \cdot B \cdot D^2 \cdot (C - D)} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{X \cdot Y \cdot Z \cdot m \cdot p \cdot \left[Z \cdot (W \cdot n - X \cdot m)^2 - W \cdot X \cdot m \cdot n \cdot p\right]}{W \cdot X^2 \cdot Y \cdot m^2 \cdot n \cdot p^3 - Z^3 \cdot W \cdot n \cdot o \cdot (W \cdot n - X \cdot m)^2 - Z \cdot X \cdot m \cdot p^2 \cdot \left[W^2 \cdot Y \cdot n^2 + X^2 \cdot Y \cdot m^2 - W \cdot X \cdot m \cdot n \cdot (2 \cdot Y - o)\right]} = 0$$

4RST7AB1R2



$N_1 = 3.23246$
$N_2 = 1.51808$
$N_3 = 2.04584$
$N_4 = 0.99741$
R = 0.44685

Unit. $AB := 1$ Given. $N_1 := 3.23246$ $N_2 := 1.51808$ $N_3 := 2.04584$ $N_4 := .99741$

Descriptions.

$$AC := \frac{N_1 - N_2}{N_1} \qquad AJ := \frac{N_1 - N_2}{N_1}$$

$$JK := N_4 \cdot AJ \qquad AT := \frac{JK}{AB - AJ}$$

$$EH := \sqrt{AB^2 + AC^2} \qquad AF := \frac{AC}{2}$$

$$EF := \frac{EH - AB}{2} \qquad BT := \sqrt{AB^2 + AT^2}$$

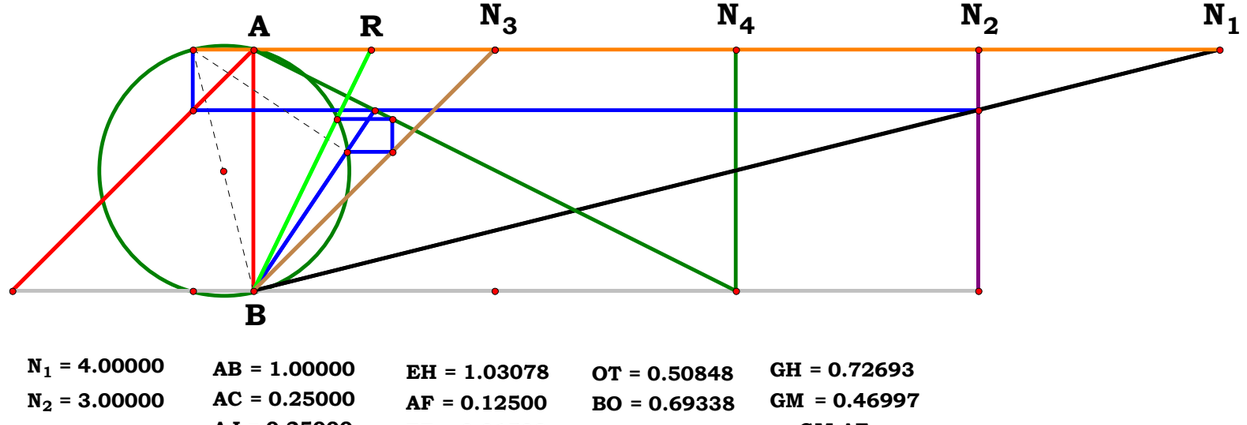
$$CT := AT + AC \qquad OT := \frac{CT \cdot AT}{BT}$$

$$BO := BT - OT \qquad OS := \frac{BO}{BT}$$

$$BS := N_3 \cdot OS \qquad PS := \frac{N_4 - BS}{N_4}$$

$$GH := PS + EF \qquad GM := \sqrt{GH \cdot (EH - GH)}$$

$$R := \frac{GM - AF}{PS} \qquad R = 0.446856$$

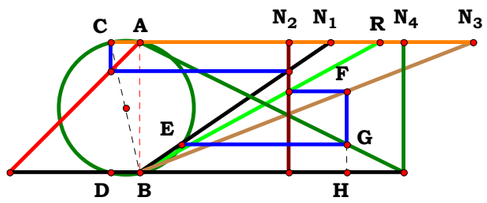


$N_1 = 4.00000$ $AB = 1.00000$ $EH = 1.03078$ $OT = 0.50848$ $GH = 0.72693$
$N_2 = 3.00000$ $AC = 0.25000$ $AF = 0.12500$ $BO = 0.69338$ $GM = 0.46997$
$N_3 = 1.00000$ $AJ = 0.25000$ $EF = 0.01539$ $OS = 0.57692$ $R - \frac{GM - AF}{PS} = 0.00000$
$N_4 = 2.00000$ $JK = 0.50000$ $BT = 1.20185$ $BS = 0.57692$
$R = 0.48483$ $AT = 0.66667$ $CT = 0.91667$ $PS = 0.71154$

Definitions.

$$R - \frac{N_4 \cdot \left[\begin{array}{l} \sqrt{N_4^6 \cdot (N_1 - N_2)^6 - 4 \cdot N_1^2 \cdot N_2^4 \cdot N_3^2 + N_2^2 \cdot N_4^2 \cdot (N_1 - N_2)^2 \cdot \left[4 \cdot N_2 \cdot N_3 \cdot (2 \cdot N_1 \cdot N_3 - N_1 - N_2 \cdot N_3) - 4 \cdot N_1^2 \cdot N_3 \cdot (N_3 - N_4) + N_2^2 \right]} \ \ldots \ \ldots \\ + 2 \cdot N_2 \cdot N_4^4 \cdot (N_2 - 2 \cdot N_1 \cdot N_3) \cdot (N_1 - N_2)^4 + 4 \cdot N_1 \cdot N_2^3 \cdot N_3 \cdot N_4 \cdot (2 \cdot N_1^2 \cdot N_3 + 2 \cdot N_2^2 \cdot N_3 + N_1 \cdot N_2 - 4 \cdot N_1 \cdot N_2 \cdot N_3) \\ + -\sqrt{N_4^2 \cdot (N_1^2 \cdot N_4^2 - 2 \cdot N_1 \cdot N_2 \cdot N_4^2 + N_2^2 \cdot N_4^2 + N_2^2)^2} \cdot (N_1 - N_2) \end{array} \right] \cdot \left[N_4^2 \cdot (N_1 - N_2)^2 + N_2^2 \right]}{2 \cdot \sqrt{N_4^2 \cdot \left[N_1 \cdot N_4^2 \cdot (N_1 - 2 \cdot N_2) + N_2^2 \cdot (N_4^2 + 1) \right]^2} \cdot \left[N_1 \cdot (N_1^2 \cdot N_4^3 + N_2^2 \cdot N_4 - N_3 \cdot N_2^2) + N_2^2 \cdot N_4 \cdot (N_1 \cdot N_4^2 + N_2 \cdot N_3) + N_1 \cdot N_2 \cdot N_4 \cdot (N_1 \cdot N_3 - 2 \cdot N_2 \cdot N_3 - 2 \cdot N_1 \cdot N_4^2) \right]} = 0$$

4RST7AB1R3



$N_1 = 1.45996$
$N_2 = 1.14033$
$N_3 = 2.55918$
$N_4 = 2.02410$
$R = 1.84199$

Unit. $AB := 1$ Given. $N_1 := 1.45996$ $N_2 := 1.14033$ $N_3 := 2.55918$

$N_4 := 2.0241$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

$AC := \frac{N_1 - N_2}{N_1}$ $CN_1 := AC + N_1$

$BN_1 := \sqrt{AB^2 + N_1^2}$ $EN_1 := \frac{N_1 \cdot CN_1}{BN_1}$

$BE := BN_1 - EN_1$ $GH := \frac{BE}{BN_1}$

$BH := N_4 \cdot (AB - GH)$ $FH := \frac{BH}{N_3}$

$R := \frac{N_2}{FH}$ $R = 1.841985$

Definitions.

$$R - \frac{N_2 \cdot N_3 \cdot \left(N_1^2 + 1\right)}{N_1 \cdot N_4 \cdot \left(AC + N_1\right)} = 0$$

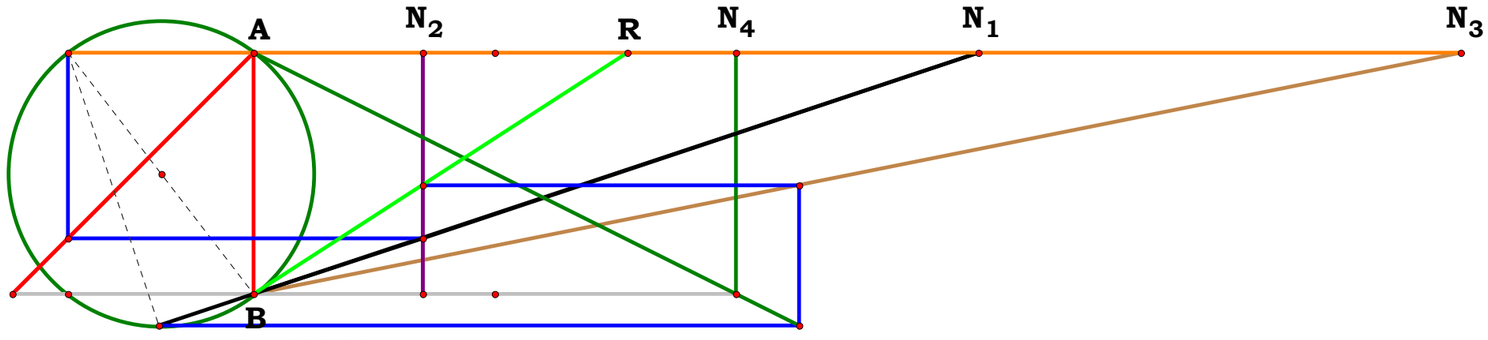
$$R - \frac{N_2 \cdot N_3 \cdot \left(N_1^2 + 1\right)}{N_4 \cdot \left(N_1^2 + N_1 - N_2\right)} = 0$$

$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{D \cdot \left(A^2 + N_u^2\right)}{B \cdot C \cdot A - C \cdot A^2 + B \cdot C \cdot N_u} = 0$$

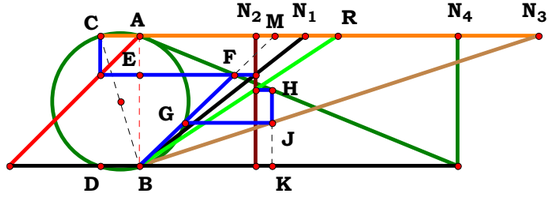
$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{X \cdot Y \cdot p \cdot \left(W^2 + m^2\right)}{Z \cdot o \cdot \left(n \cdot W^2 + n \cdot W \cdot m - X \cdot m^2\right)} = 0$$



$N_1 = 3.00000$
$N_2 = 0.70000$
$N_3 = 5.00000$
$N_4 = 2.00000$
$R = 1.54867$
$N_2 \cdot N_3 \cdot (N_1^2+1)$
$\frac{N_2 \cdot N_3 \cdot (N_1^2+1)}{N_4 \cdot ((N_1^2+N_1)-N_2)} - R = 0.00000$

4RST7AB1R4



$N_1 = 1.26624$
$N_2 = 0.88850$
$N_3 = 3.06284$
$N_4 = 2.44059$
$R = 1.52469$

Unit. $AB := 1$ **Given.** $N_1 := 1.26624$ $N_2 := .88850$ $N_3 := 3.06284$

$N_4 := 2.44059$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

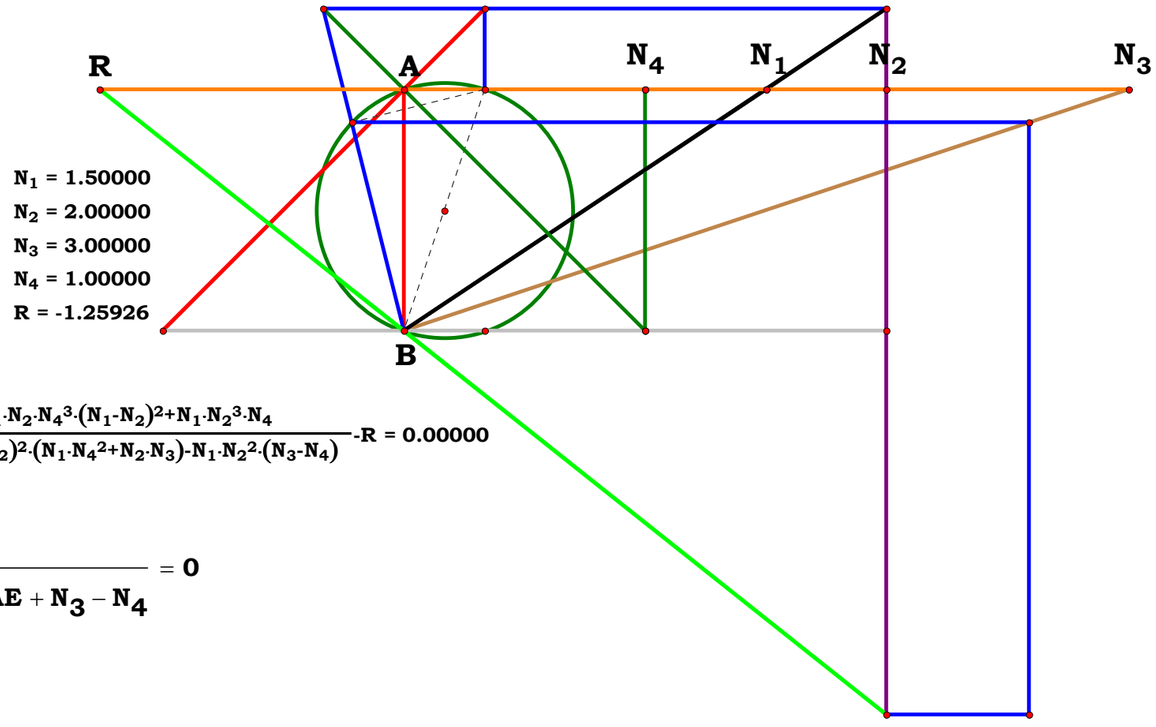
$AC := \frac{N_1 - N_2}{N_1}$ $AE := \frac{N_1 - N_2}{N_1}$ $EF := N_4 \cdot AE$

$AM := \frac{EF}{AB - AE}$ $CM := AM + AC$ $BM := \sqrt{AB^2 + AM^2}$

$GM := \frac{AM \cdot CM}{BM}$ $BG := BM - GM$ $JK := \frac{BG}{BM}$

$BK := N_3 \cdot JK$ $HK := \frac{N_4 - BK}{N_4}$

$R := \frac{N_2}{HK}$ $R = 1.524717$



$N_1 = 1.50000$
$N_2 = 2.00000$
$N_3 = 3.00000$
$N_4 = 1.00000$
$R = -1.25926$

$N_1 \cdot N_2 \cdot N_4^3 \cdot (N_1 - N_2)^2 + N_1 \cdot N_2^3 \cdot N_4$

$\frac{N_1 \cdot N_2 \cdot N_4^3 \cdot (N_1 - N_2)^2 + N_1 \cdot N_2^3 \cdot N_4}{N_4 \cdot (N_1 - N_2)^2 \cdot (N_1 \cdot N_4^2 + N_2 \cdot N_3) - N_1 \cdot N_2^2 \cdot (N_3 - N_4)} - R = 0.00000$

Definitions.

$$R - \frac{2 \cdot N_2 \cdot N_4 \cdot AE - N_2 \cdot N_4 - \left(N_2 \cdot N_4^3 + N_2 \cdot N_4\right) \cdot AE^2}{\left(N_3 - N_4 - N_4^3 + AC \cdot N_3 \cdot N_4\right) \cdot AE^2 + \left(2 \cdot N_4 - 2 \cdot N_3 - AC \cdot N_3 \cdot N_4\right) \cdot AE + N_3 - N_4} = 0$$

$$R - \frac{N_1 \cdot N_2 \cdot N_4^3 \cdot \left(N_1 - N_2\right)^2 + N_1 \cdot N_2^3 \cdot N_4}{N_4 \cdot \left(N_1 - N_2\right)^2 \cdot \left(N_1 \cdot N_4^2 + N_2 \cdot N_3\right) - N_1 \cdot N_2^2 \cdot \left(N_3 - N_4\right)} = 0$$

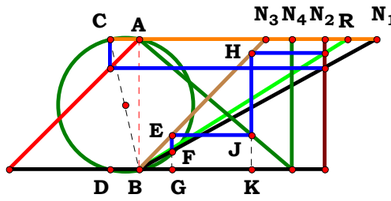
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{N_u^3 \cdot C \cdot (A - B)^2 + A^2 \cdot C \cdot D^2 \cdot N_u}{N_u^2 \cdot B \cdot C \cdot (A - B)^2 + N_u \cdot A \cdot D^2 \cdot (A - B)^2 + A^2 \cdot B \cdot D^2 \cdot (C - D)} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{Z^3 \cdot W \cdot X \cdot o \cdot (W \cdot n - X \cdot m)^2 + W \cdot X^3 \cdot m^2 \cdot o \cdot p^2 \cdot Z}{Z^3 \cdot W \cdot n \cdot o \cdot (W \cdot n - X \cdot m)^2 + Z \cdot X \cdot m \cdot p^2 \cdot \left[Y \cdot n^2 \cdot W^2 - W \cdot X \cdot m \cdot n \cdot (2 \cdot Y - o) + X^2 \cdot Y \cdot m^2\right] - W \cdot X^2 \cdot Y \cdot m^2 \cdot n \cdot p^3} = 0$$

4RST7AB1R5



$N_1 = 1.81833$
$N_2 = 1.42122$
$N_3 = 0.97071$
$N_4 = 1.17175$
$R = 1.59589$

Unit. $AB := 1$ **Given.** $N_1 := 1.81833$ $N_2 := 1.42122$ $N_3 := .97071$ $N_4 := 1.17175$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

$AC := AB - \frac{N_2}{N_1}$ $CN_1 := AC + N_1$ $BN_1 := \sqrt{AB^2 + N_1{}^2}$

$FN_1 := \frac{N_1 \cdot CN_1}{BN_1}$ $BF := BN_1 - FN_1$ $BG := \frac{N_1 \cdot BF}{BN_1}$

$EG := \frac{BG}{N_3}$ $BK := N_4 \cdot (AB - EG)$

$HK := \frac{BK}{N_3}$ $R := \frac{N_2}{HK}$ $R = 1.595902$

Definitions.

$$R - \frac{N_2 \cdot N_3{}^2 \cdot \left(N_1{}^2 + 1\right)}{N_3 \cdot N_4 - N_1 \cdot N_4 + AC \cdot N_1{}^2 \cdot N_4 + N_1{}^2 \cdot N_3 \cdot N_4} = 0$$

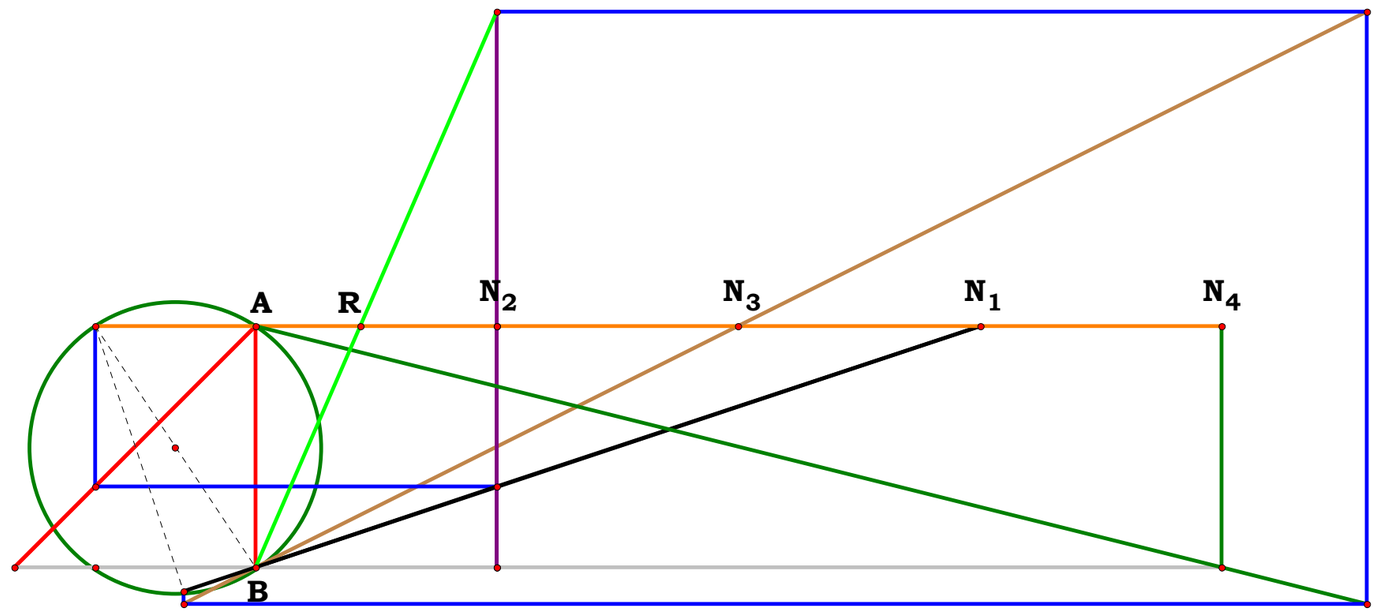
$$R - \frac{N_2 \cdot N_3{}^2 \cdot \left(N_1{}^2 + 1\right)}{N_4 \cdot \left(N_3 - N_1 + N_1{}^2 \cdot N_3 + N_1{}^2 - N_1 \cdot N_2\right)} = 0$$

$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{D \cdot N_u \cdot \left(A^2 + N_u{}^2\right)}{B \cdot C \cdot N_u{}^2 - N_u \cdot C^2 \cdot (A - B) + A \cdot B \cdot C \cdot (A - C)} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

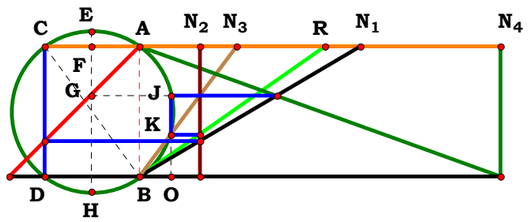
$$R - \frac{X \cdot Y^2 \cdot p \cdot \left(W^2 + m^2\right)}{Y \cdot Z \cdot n \cdot o \cdot \left(W^2 + m^2\right) + W \cdot Z \cdot o^2 \cdot (W \cdot n - X \cdot m - m \cdot n)} = 0$$



$N_1 = 3.00000$
$N_2 = 1.00000$
$N_3 = 2.00000$
$N_4 = 4.00000$
$R = 0.43478$

$\frac{N_2 \cdot N_3{}^2 \cdot (N_1{}^2+1)}{N_4 \cdot (((N_3-N_1)+N_1{}^2 \cdot N_3+N_1{}^2)-N_1 \cdot N_2)} - R = 0.00000$

4RST7AB1R6



$N_1 = 1.69242$
$N_2 = 0.46232$
$N_3 = 0.74794$
$N_4 = 2.77486$
$R = 1.42468$

Unit. $AB := 1$ **Given.** $N_1 := 1.69242$ $N_2 := .46232$ $N_3 := .74794$

$N_4 := 2.77486$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

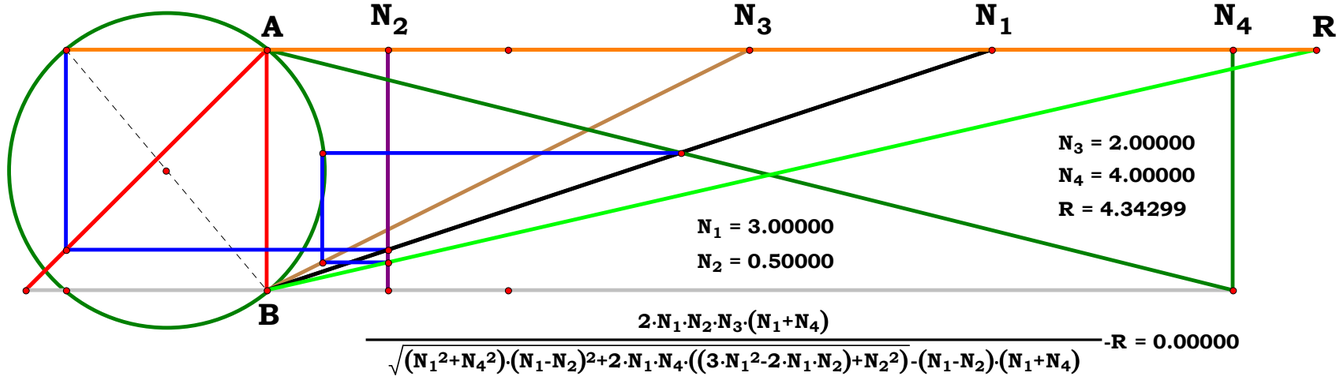
Descriptions.

$AC := AB - \frac{N_2}{N_1}$ $EH := \sqrt{AB^2 + AC^2}$ $AF := \frac{AC}{2}$

$EF := \frac{EH - AB}{2}$ $JO := \frac{N_4}{N_4 + N_1}$ $GH := JO + EF$

$GJ := \sqrt{GH \cdot (EH - GH)}$ $BO := GJ - AF$

$KO := \frac{BO}{N_3}$ $R := \frac{N_2}{KO}$ $R = 1.424669$



$$\frac{2 \cdot N_1 \cdot N_2 \cdot N_3 \cdot (N_1 + N_4)}{\sqrt{(N_1^2 + N_4^2) \cdot (N_1 - N_2)^2 + 2 \cdot N_1 \cdot N_4 \cdot ((3 \cdot N_1^2 - 2 \cdot N_1 \cdot N_2) + N_2^2)} - (N_1 - N_2) \cdot (N_1 + N_4)} - R = 0.00000$$

Definitions.

$$R - \frac{2 \cdot N_2 \cdot N_3 \cdot \sqrt{(N_1 + N_4)^2}}{\sqrt{AC^2 \cdot N_1^2 + 2 \cdot AC^2 \cdot N_1 \cdot N_4 + AC^2 \cdot N_4^2 + 4 \cdot N_1 \cdot N_4} - AC \cdot \sqrt{(N_1 + N_4)^2}} = 0$$

$$R - \frac{2 \cdot N_1 \cdot N_2 \cdot N_3 \cdot (N_1 + N_4)}{\sqrt{(N_1^2 + N_4^2) \cdot (N_1 - N_2)^2 + 2 \cdot N_1 \cdot N_4 \cdot (3 \cdot N_1^2 - 2 \cdot N_1 \cdot N_2 + N_2^2)} - (N_1 + N_4) \cdot (N_1 - N_2)} = 0$$

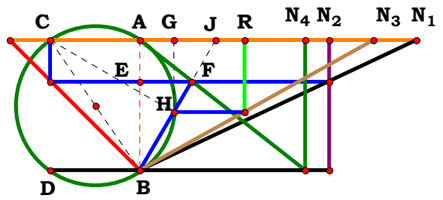
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{2 \cdot N_u^2 \cdot (A + D)}{C \cdot \left[A^2 - A \cdot B + A \cdot D - B \cdot D + \sqrt{(A^2 + D^2) \cdot (A - B)^2 + 2 \cdot A \cdot D \cdot (A^2 - 2 \cdot A \cdot B + 3 \cdot B^2)}\right]} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{2 \cdot W \cdot X \cdot Y \cdot (W \cdot p + Z \cdot m)}{o \cdot \left[\sqrt{X \cdot m \cdot (W \cdot p + Z \cdot m)^2 \cdot (X \cdot m - 2 \cdot W \cdot n) + W^2 \cdot n^2 \cdot (W^2 \cdot p^2 + 6 \cdot W \cdot Z \cdot m \cdot p + Z^2 \cdot m^2)} - (W \cdot p + Z \cdot m) \cdot (W \cdot n - X \cdot m)\right]} = 0$$

4RST7AB2R0



$N_1 = 2.11859$
$N_2 = 1.45027$
$N_3 = 1.79401$
$N_4 = 1.26861$
$R = 0.80198$

Unit. $AB := 1$ Given. $N_1 := 2.11859$ $N_2 := 1.45027$ $N_3 := 1.79401$

$N_4 := 1.26861$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

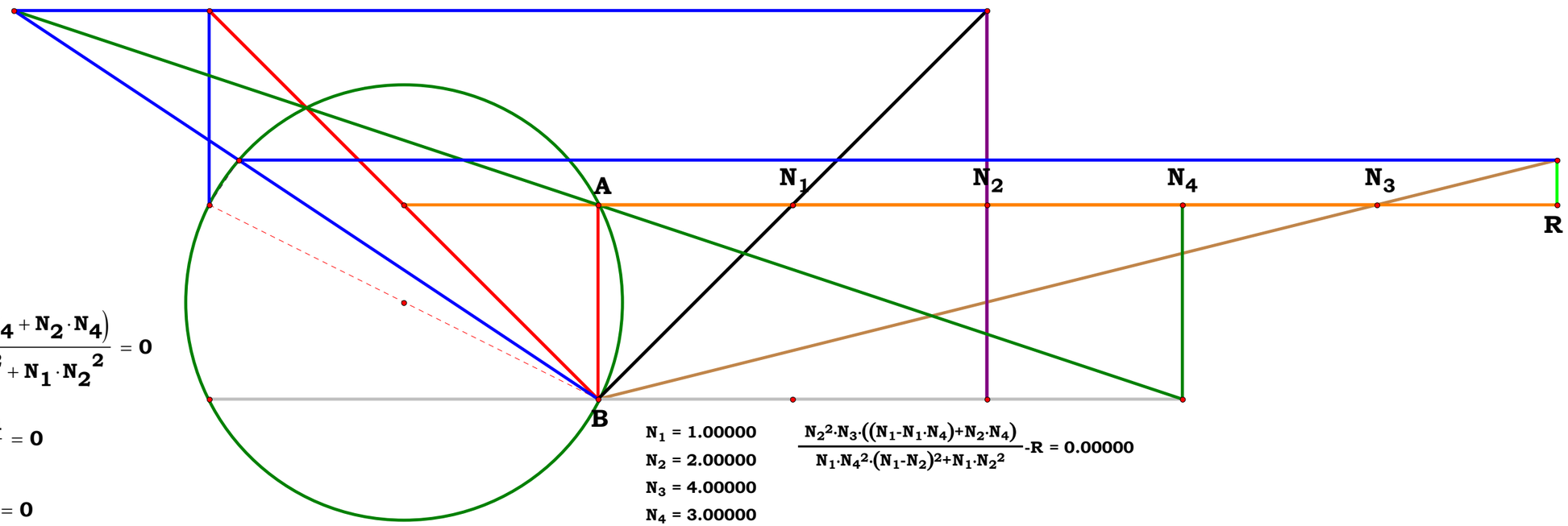
$AC := \frac{N_2}{N_1}$ $AE := \frac{N_1 - N_2}{N_1}$ $EF := N_4 \cdot AE$ $AJ := \frac{EF}{AB - AE}$ $BJ := \sqrt{AB^2 + AJ^2}$

$HJ := \frac{AJ + AC}{BJ}$

$HG := \frac{AJ \cdot HJ}{BJ}$

$R := N_3 \cdot (AB - HG)$

$R = 0.801978$



$N_1 = 1.00000$
$N_2 = 2.00000$
$N_3 = 4.00000$
$N_4 = 3.00000$
$R = 4.92308$

$\frac{N_2^2 \cdot N_3 \cdot ((N_1 - N_1 \cdot N_4) + N_2 \cdot N_4)}{N_1 \cdot N_4^2 \cdot (N_1 - N_2)^2 + N_1 \cdot N_2^2} - R = 0.00000$

Definitions.

$$R - \frac{N_2^2 \cdot N_3 \cdot (N_1 - N_1 \cdot N_4 + N_2 \cdot N_4)}{N_1 \cdot N_4^2 \cdot (N_1 - N_2)^2 + N_1 \cdot N_2^2} = 0$$

$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$

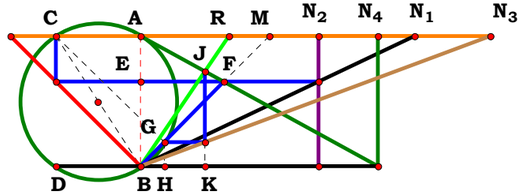
$N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{A^2 \cdot D \cdot N_u \cdot [B \cdot D + N_u \cdot (A - B)]}{N_u^2 \cdot B \cdot C \cdot (A - B)^2 + A^2 \cdot B \cdot C \cdot D^2} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{X^2 \cdot Y \cdot m^2 \cdot p \cdot (X \cdot Z \cdot m - W \cdot Z \cdot n + W \cdot n \cdot p)}{Z^2 \cdot W \cdot n \cdot o \cdot (W \cdot n - X \cdot m)^2 + W \cdot X^2 \cdot m^2 \cdot n \cdot o \cdot p^2} = 0$$

4RST7AB2R1



$N_1 = 2.09922$
$N_2 = 1.36310$
$N_3 = 2.68510$
$N_4 = 1.82070$
$R = 0.67719$

Unit. $AB := 1$ **Given.** $N_1 := 2.09922$ $N_2 := 1.36310$ $N_3 := 2.68510$ $N_4 := 1.82070$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

$AC := \frac{N_2}{N_1}$ $AE := \frac{N_1 - N_2}{N_1}$ $EF := N_4 \cdot AE$

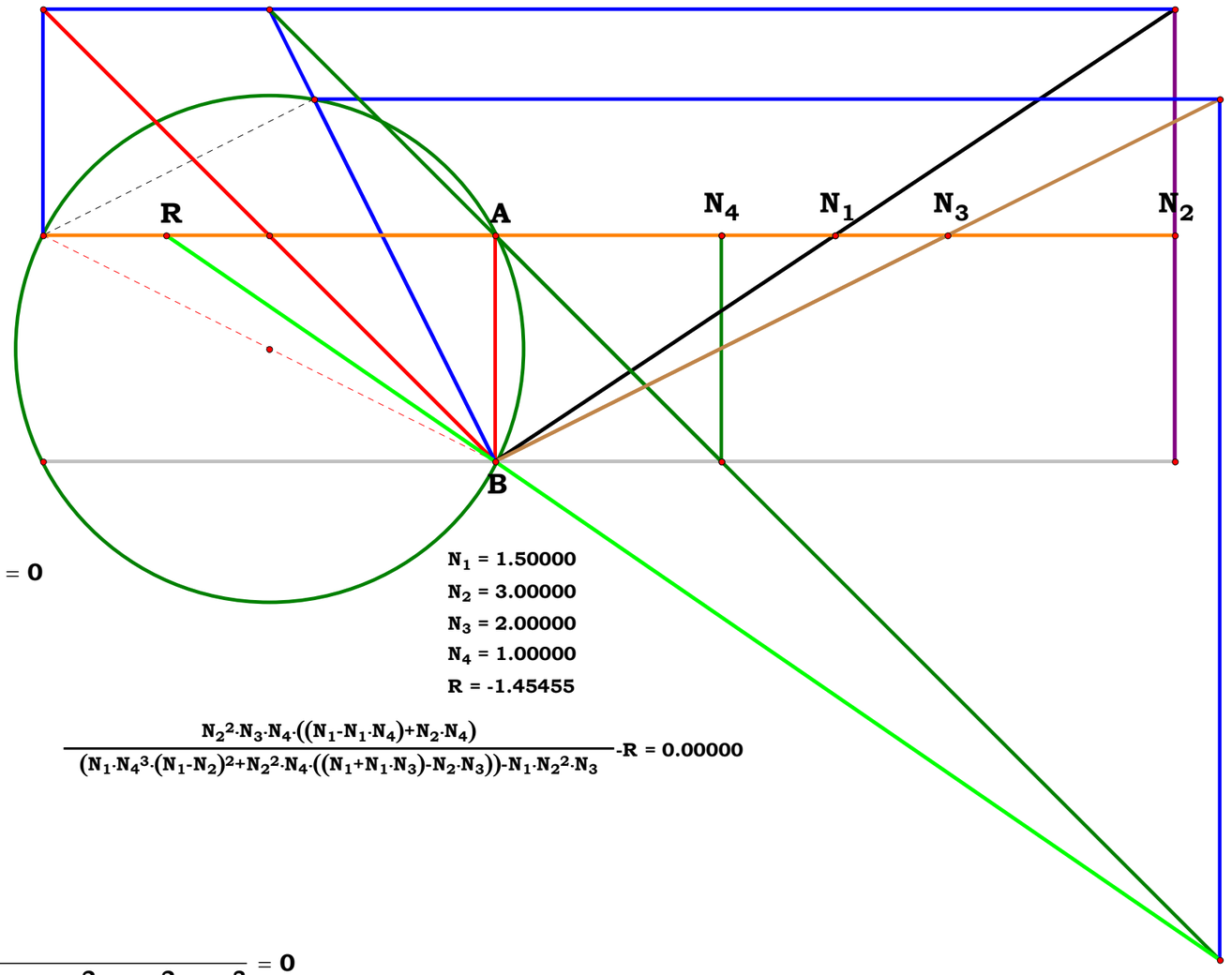
$AM := \frac{EF}{AB - AE}$ $BM := \sqrt{AM^2 + AB^2}$

$FM := \frac{AM \cdot (AM + AC)}{BM}$ $BG := BM - FM$

$GH := \frac{BG}{BM}$ $BK := N_3 \cdot GH$

$JK := \frac{N_4 - BK}{N_4}$ $R := \frac{BK}{JK}$

$R = 0.677186$



$N_1 = 1.50000$
$N_2 = 3.00000$
$N_3 = 2.00000$
$N_4 = 1.00000$
$R = -1.45455$

$\frac{N_2^2 \cdot N_3 \cdot N_4 \cdot ((N_1 - N_1 \cdot N_4) + N_2 \cdot N_4)}{(N_1 \cdot N_4^3 \cdot (N_1 - N_2)^2 + N_2^2 \cdot N_4 \cdot ((N_1 + N_1 \cdot N_3) - N_2 \cdot N_3)) - N_1 \cdot N_2^2 \cdot N_3} - R = 0.00000$

Definitions.

$$R - \frac{N_2^2 \cdot N_3 \cdot N_4 \cdot \left(N_1 - N_1 \cdot N_4 + N_2 \cdot N_4\right)}{N_1 \cdot N_4^3 \cdot \left(N_1 - N_2\right)^2 + N_2^2 \cdot N_4 \cdot \left(N_1 + N_1 \cdot N_3 - N_2 \cdot N_3\right) - N_1 \cdot N_2^2 \cdot N_3} = 0$$

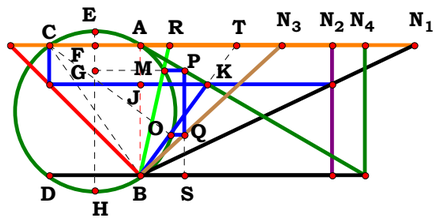
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{A^2 \cdot D \cdot N_u \cdot \left[B \cdot D + N_u \cdot (A - B)\right]}{N_u^2 \cdot B \cdot C \cdot (A - B)^2 - N_u \cdot A^2 \cdot D^2 \cdot (A - B) + A^2 \cdot B \cdot D^2 \cdot (C - D)} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{X^2 \cdot Y \cdot Z \cdot m^2 \cdot p \cdot (X \cdot Z \cdot m - W \cdot Z \cdot n + W \cdot n \cdot p)}{Z^3 \cdot W \cdot n \cdot o \cdot (W \cdot n - X \cdot m)^2 + Z \cdot X^2 \cdot m^2 \cdot p^2 \cdot (W \cdot Y \cdot n - X \cdot Y \cdot m + W \cdot n \cdot o) - W \cdot X^2 \cdot Y \cdot m^2 \cdot n \cdot p^3} = 0$$

4RST7AB2R2



$N_1 = 2.09922$
$N_2 = 1.46965$
$N_3 = 1.08694$
$N_4 = 1.72384$
$R = 0.22397$

Unit. $AB := 1$ **Given.** $N_1 := 2.09922$ $N_2 := 1.46965$ $N_3 := 1.08694$ $N_4 := 1.72384$

Descriptions.

$AC := \frac{N_2}{N_1}$ $AJ := \frac{N_1 - N_2}{N_1}$

$JK := N_4 \cdot AJ$ $AT := \frac{JK}{AB - AJ}$

$EH := \sqrt{AB^2 + AC^2}$ $AF := \frac{AC}{2}$

$EF := \frac{EH - AB}{2}$ $BT := \sqrt{AB^2 + AT^2}$

$CT := AT + AC$ $OT := \frac{CT \cdot AT}{BT}$

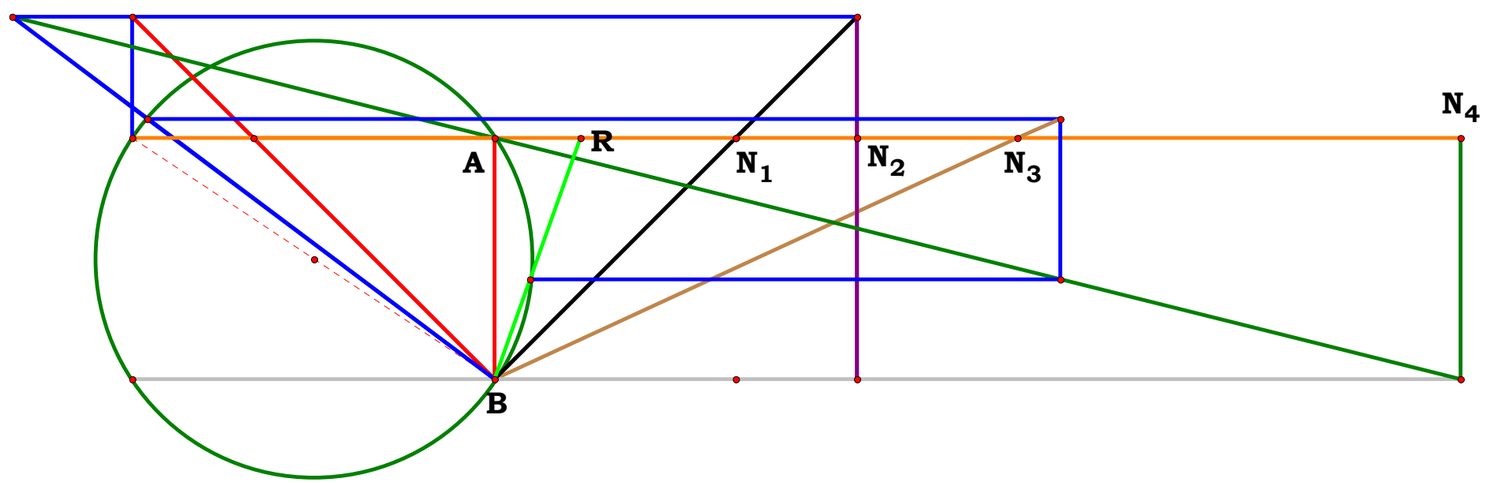
$BO := BT - OT$ $OS := \frac{BO}{BT}$

$BS := N_3 \cdot OS$ $PS := \frac{N_4 - BS}{N_4}$

$GH := PS + EF$ $GM := \sqrt{GH \cdot (EH - GH)}$

$R := \frac{GM - AF}{PS}$ $R = 0.223974$

Definitions.



$N_1 = 1.00000$ $AC = 1.50000$ $AT = -1.33333$ $BT = 1.66667$ $OS = 1.08000$ $GM = 0.89735$

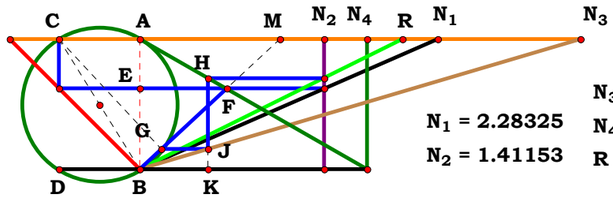
$N_2 = 1.50000$ $AJ = -0.50000$ $EH = 1.80278$ $CT = 0.16667$ $BS = 2.34071$ $R - \frac{GM - AF}{PS} = 0.00000$

$N_3 = 2.16733$ $JK = -2.00000$ $AF = 0.75000$ $OT = -0.13333$ $PS = 0.41482$

$N_4 = 4.00000$ $AB = 1.00000$ $EF = 0.40139$ $BO = 1.80000$ $GH = 0.81621$

$R = 0.35522$

4RST7AB2R4



$N_3 = 3.38247$
$N_4 = 1.74321$
$R = 2.01819$

$N_1 = 2.28325$
$N_2 = 1.41153$

Unit. $AB := 1$ **Given.** $N_1 := 2.28325$ $N_2 := 1.41153$ $N_3 := 3.38247$

$N_4 := 1.74321$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

$AC := \frac{N_2}{N_1}$ $AE := \frac{N_1 - N_2}{N_1}$ $EF := N_4 \cdot AE$

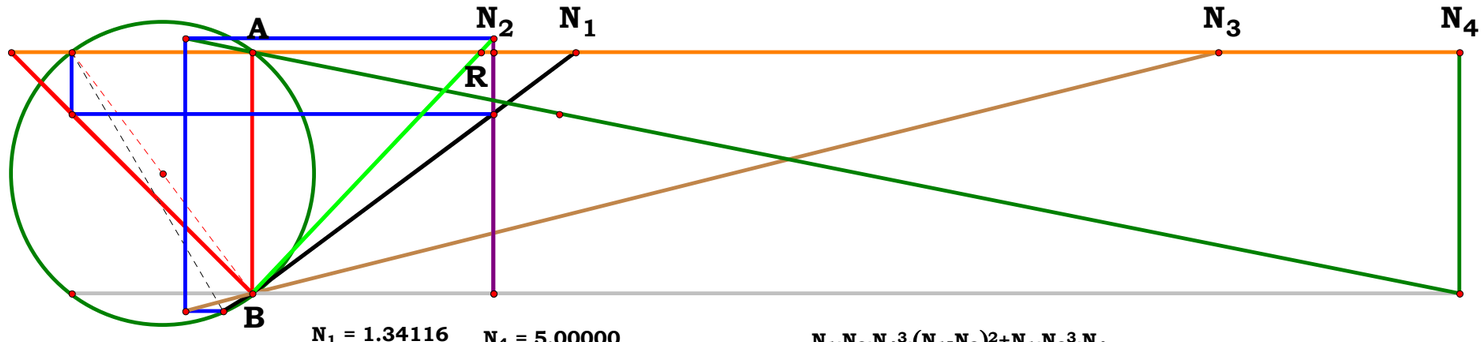
$AM := \frac{EF}{AB - AE}$ $CM := AM + AC$

$BM := \sqrt{AB^2 + AM^2}$ $GM := \frac{AM \cdot CM}{BM}$

$BG := BM - GM$ $JK := \frac{BG}{BM}$

$BK := N_3 \cdot JK$ $HK := \frac{N_4 - BK}{N_4}$

$R := \frac{N_2}{HK}$ $R = 2.01819$



$N_1 = 1.34116$
$N_2 = 1.00000$
$N_3 = 4.00000$
$N_4 = 5.00000$
$R = 0.94730$

$$\frac{N_1 \cdot N_2 \cdot N_4^3 \cdot (N_1 - N_2)^2 + N_1 \cdot N_2^3 \cdot N_4}{(N_1 \cdot N_4^3 \cdot (N_1 - N_2)^2 + N_2^2 \cdot N_4 \cdot ((N_1 + N_1 \cdot N_3) - N_2 \cdot N_3)) - N_1 \cdot N_2^2 \cdot N_3} - R = 0.00000$$

Definitions.

$$R - \frac{N_1 \cdot N_2 \cdot N_4^3 \cdot (N_1 - N_2)^2 + N_1 \cdot N_2^3 \cdot N_4}{N_1 \cdot N_4^3 \cdot (N_1 - N_2)^2 + N_2^2 \cdot N_4 \cdot (N_1 + N_1 \cdot N_3 - N_2 \cdot N_3) - N_1 \cdot N_2^2 \cdot N_3} = 0$$

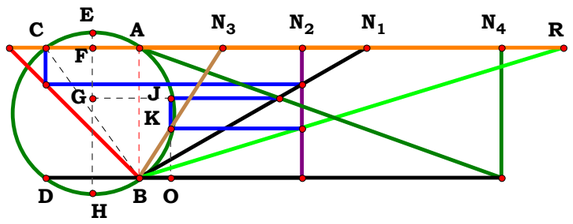
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{N_u^3 \cdot C \cdot (A - B)^2 + A^2 \cdot C \cdot D^2 \cdot N_u}{N_u^2 \cdot B \cdot C \cdot (A - B)^2 - N_u \cdot A^2 \cdot D^2 \cdot (A - B) + A^2 \cdot B \cdot D^2 \cdot (C - D)} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{W \cdot X \cdot Z \cdot o \cdot \left[Z^2 \cdot (W \cdot n - X \cdot m)^2 + X^2 \cdot m^2 \cdot p^2\right]}{Z^3 \cdot W \cdot n \cdot o \cdot (W \cdot n - X \cdot m)^2 + Z \cdot X^2 \cdot m^2 \cdot p^2 \cdot (W \cdot Y \cdot n - X \cdot Y \cdot m + W \cdot n \cdot o) - W \cdot X^2 \cdot Y \cdot m^2 \cdot n \cdot p^3} = 0$$

4RST7AB2R6



$N_1 = 1.74085$
$N_2 = 1.24687$
$N_3 = 0.64140$
$N_4 = 2.77959$
$R = 3.25003$

Unit. $AB := 1$ **Given.** $N_1 := 1.74085$ $N_2 := 1.24687$ $N_3 := .64140$ $N_4 := 2.77959$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

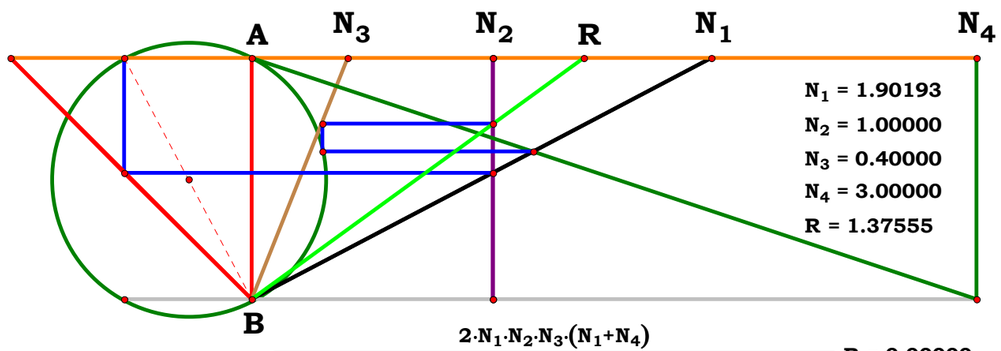
Descriptions.

$AC := \frac{N_2}{N_1}$ $EH := \sqrt{AB^2 + AC^2}$ $AF := \frac{AC}{2}$

$EF := \frac{EH - AB}{2}$ $JO := \frac{N_4}{N_4 + N_1}$ $GH := JO + EF$

$GJ := \sqrt{GH \cdot (EH - GH)}$ $BO := GJ - AF$

$KO := \frac{BO}{N_3}$ $R := \frac{N_2}{KO}$ $R = 3.250024$



$N_1 = 1.90193$
$N_2 = 1.00000$
$N_3 = 0.40000$
$N_4 = 3.00000$
$R = 1.37555$

$$\frac{2 \cdot N_1 \cdot N_2 \cdot N_3 \cdot (N_1 + N_4)}{\sqrt{4 \cdot N_1^3 \cdot N_4 + N_1^2 \cdot N_2^2 + 2 \cdot N_1 \cdot N_2^2 \cdot N_4 + N_2^2 \cdot N_4^2} - N_2 \cdot (N_1 + N_4)} - R = 0.00000$$

Definitions.

$$R - \frac{2 \cdot N_1 \cdot N_2 \cdot N_3 \cdot (N_1 + N_4)}{\sqrt{4 \cdot N_1^3 \cdot N_4 + N_1^2 \cdot N_2^2 + 2 \cdot N_1 \cdot N_2^2 \cdot N_4 + N_2^2 \cdot N_4^2} - N_2 \cdot (N_1 + N_4)} = 0$$

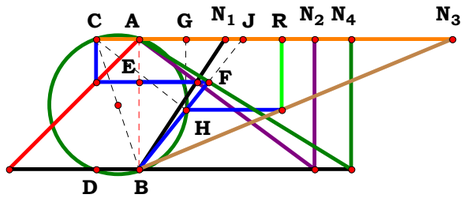
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{2 \cdot N_u^2 \cdot (A + D)}{\sqrt{A} \cdot C \cdot \left(\sqrt{A^3 + 2 \cdot A^2 \cdot D + A \cdot D^2 + 4 \cdot B^2 \cdot D} - A^{\frac{3}{2}} - \sqrt{A} \cdot D \right)} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{2 \cdot W \cdot X \cdot Y \cdot (W \cdot p + Z \cdot m)}{\sqrt{m} \cdot o \cdot \left[\sqrt{X^2 \cdot m^3 \cdot Z^2 + 2 \cdot Z \cdot W \cdot p \cdot \left(2 \cdot W^2 \cdot n^2 + X^2 \cdot m^2 \right) + W^2 \cdot X^2 \cdot m \cdot p^2} - \sqrt{m} \cdot X \cdot (W \cdot p + Z \cdot m) \right]} = 0$$

4RST7AB3R0



$N_1 = 0.65604$
$N_2 = 1.34373$
$N_3 = 2.40421$
$N_4 = 1.62698$
$R = 1.08997$

Unit. $AB := 1$ Given. $N_1 := .65604$ $N_2 := 1.34373$ $N_3 := 2.40421$

$N_4 := 1.62698$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

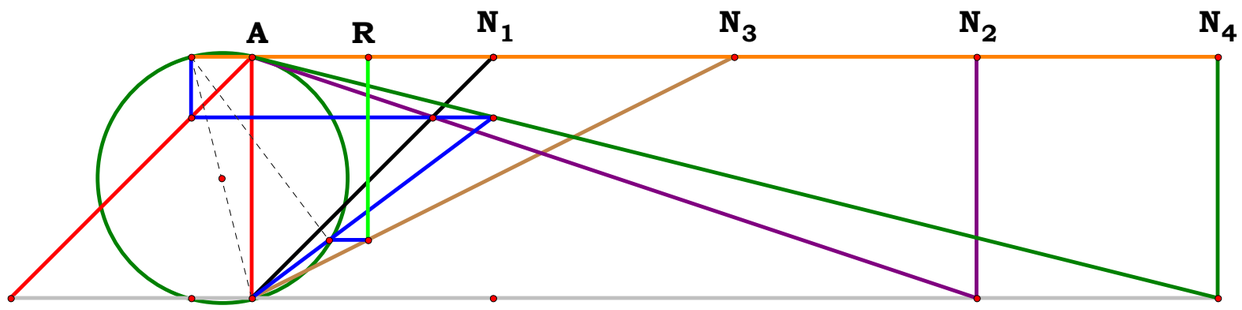
$AC := \frac{N_1}{N_1 + N_2}$ $AE := \frac{N_1}{N_1 + N_2}$

$EF := N_4 \cdot AE$ $AJ := \frac{EF}{AB - AE}$

$BJ := \sqrt{AB^2 + AJ^2}$ $HJ := \frac{AJ + AC}{BJ}$

$HG := \frac{AJ \cdot HJ}{BJ}$ $R := N_3 \cdot (AB - HG)$

$R = 1.089977$



Definitions.

$$R - \frac{N_2 \cdot N_3 \cdot \left(N_1 \cdot N_2 - N_1^2 \cdot N_4 + N_2^2\right)}{\left(N_1 + N_2\right) \cdot \left(N_1^2 \cdot N_4^2 + N_2^2\right)} = 0$$

$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{A \cdot D \cdot N_u \cdot \left(D \cdot A^2 + D \cdot A \cdot B - N_u \cdot B^2\right)}{C \cdot (A + B) \cdot \left(A^2 \cdot D^2 + B^2 \cdot N_u^2\right)} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

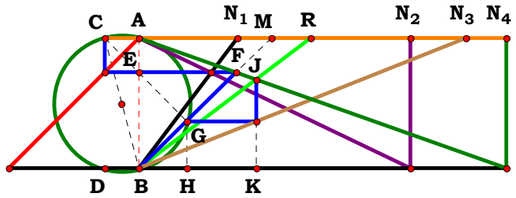
$$R - \frac{X \cdot Y \cdot m \cdot p \cdot \left(p \cdot W \cdot X \cdot m \cdot n - Z \cdot W^2 \cdot n^2 + p \cdot X^2 \cdot m^2\right)}{o \cdot (W \cdot n + X \cdot m) \cdot \left(W^2 \cdot Z^2 \cdot n^2 + X^2 \cdot m^2 \cdot p^2\right)} = 0$$

B

$N_1 = 1.00000$
$N_2 = 3.00000$
$N_3 = 2.00000$
$N_4 = 4.00000$
$R = 0.48000$

$$\frac{N_2 \cdot N_3 \cdot \left(\left(N_1 \cdot N_2 - N_1^2 \cdot N_4\right) + N_2^2\right)}{\left(N_1 + N_2\right) \cdot \left(N_1^2 \cdot N_4^2 + N_2^2\right)} - R = 0.00000$$

4RST7AB3R1



$N_1 = 0.75290$
$N_2 = 2.07985$
$N_3 = 2.51075$
$N_4 = 2.81833$
$R = 1.31502$

Unit. $AB := 1$ **Given.** $N_1 := .75290$ $N_2 := 2.07985$ $N_3 := 2.51075$

$N_4 := 2.81833$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

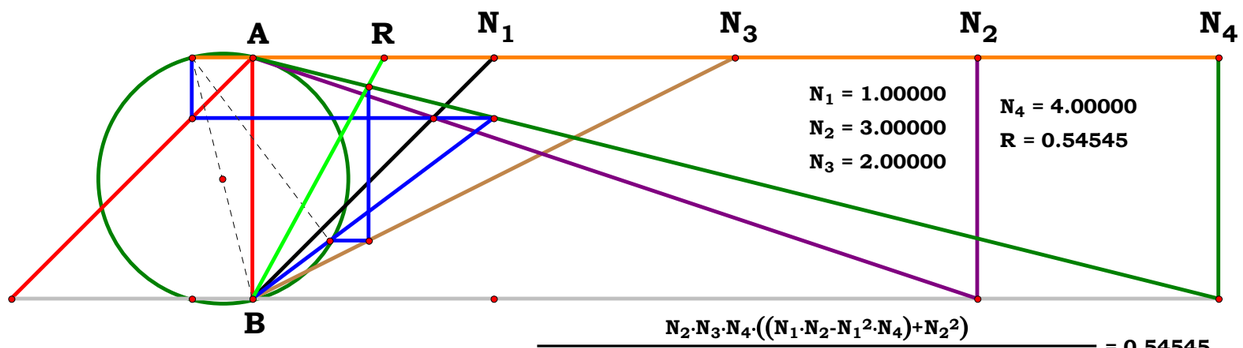
$AC := \frac{N_1}{N_1 + N_2}$ $AE := \frac{N_1}{N_1 + N_2}$ $EF := N_4 \cdot AE$

$AM := \frac{EF}{AB - AE}$ $BM := \sqrt{AM^2 + AB^2}$

$FM := \frac{AM \cdot (AM + AC)}{BM}$ $BG := BM - FM$

$GH := \frac{BG}{BM}$ $BK := N_3 \cdot GH$

$JK := \frac{N_4 - BK}{N_4}$ $R := \frac{BK}{JK}$ $R = 1.315017$



$$\frac{N_2 \cdot N_3 \cdot N_4 \cdot ((N_1 \cdot N_2 - N_1^2 \cdot N_4) + N_2^2)}{(N_1 + N_2) \cdot (N_1^2 \cdot N_4^3 - N_2^2 \cdot N_3) + N_2 \cdot N_4 \cdot (N_1^2 \cdot N_3 + N_1 \cdot N_2 + N_2^2)} = 0.54545$$

Definitions.

$$R - \frac{N_2 \cdot N_3 \cdot N_4 \cdot \left(N_1 \cdot N_2 - N_1^2 \cdot N_4 + N_2^2\right)}{\left(N_1 + N_2\right) \cdot \left(N_1^2 \cdot N_4^3 - N_2^2 \cdot N_3\right) + N_2 \cdot N_4 \cdot \left(N_1^2 \cdot N_3 + N_1 \cdot N_2 + N_2^2\right)} = 0$$

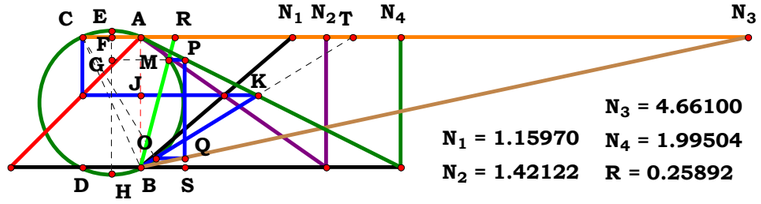
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{A \cdot D \cdot N_u \cdot \left(D \cdot A^2 + D \cdot A \cdot B - N_u \cdot B^2\right)}{N_u^2 \cdot B^2 \cdot C \cdot (A + B) + A \cdot D^2 \cdot \left[A^2 \cdot (C - D) + B^2 \cdot N_u + A \cdot B \cdot (C - D)\right]} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{X \cdot Y \cdot Z \cdot m \cdot p \cdot \left(p \cdot W \cdot X \cdot m \cdot n - Z \cdot W^2 \cdot n^2 + p \cdot X^2 \cdot m^2\right)}{Y \cdot X \cdot m \cdot p^2 \cdot \left(Z \cdot W^2 \cdot n^2 - p \cdot W \cdot X \cdot m \cdot n - p \cdot X^2 \cdot m^2\right) + Z \cdot o \cdot (W \cdot n + X \cdot m) \cdot \left(W^2 \cdot Z^2 \cdot n^2 + X^2 \cdot m^2 \cdot p^2\right)} = 0$$

4RST7AB3R2



Unit. $AB := 1$ **Given.** $N_1 := 1.15970$ $N_2 := 1.42122$ $N_3 := 4.66100$ $N_4 := 1.99504$

Descriptions.

$$AC := \frac{N_1}{N_1 + N_2} \qquad AJ := \frac{N_1}{N_1 + N_2}$$

$$JK := N_4 \cdot AJ \qquad AT := \frac{JK}{AB - AJ}$$

$$EH := \sqrt{AB^2 + AC^2} \qquad AF := \frac{AC}{2}$$

$$EF := \frac{EH - AB}{2} \qquad BT := \sqrt{AB^2 + AT^2}$$

$$CT := AT + AC \qquad OT := \frac{CT \cdot AT}{BT}$$

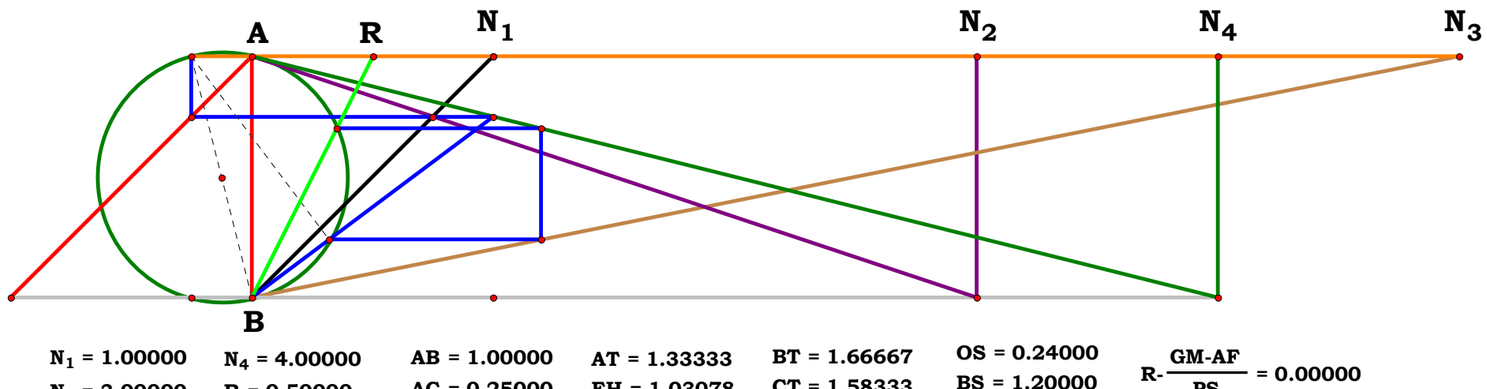
$$BO := BT - OT \qquad OS := \frac{BO}{BT}$$

$$BS := N_3 \cdot OS \qquad PS := \frac{N_4 - BS}{N_4}$$

$$GH := PS + EF \qquad GM := \sqrt{GH \cdot (EH - GH)}$$

$$R := \frac{GM - AF}{PS} \qquad R = 0.258922$$

Definitions.

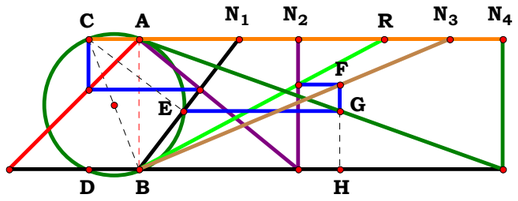


$N_1 = 1.00000$ $N_2 = 3.00000$ $N_3 = 5.00000$ $N_4 = 4.00000$ $R = 0.50000$

$AB = 1.00000$ $AC = 0.25000$ $AJ = 0.25000$ $JK = 1.00000$ $AT = 1.33333$ $EH = 1.03078$ $AF = 0.12500$ $EF = 0.01539$ $BT = 1.66667$ $CT = 1.58333$ $OT = 1.26667$ $BO = 0.40000$ $OS = 0.24000$ $BS = 1.20000$ $PS = 0.70000$ $GH = 0.71539$ $GM = 0.47500$

$$R - \frac{GM - AF}{PS} = 0.00000$$

4RST7AB3R3



$N_1 = 0.76258$
$N_2 = 1.21782$
$N_3 = 2.38484$
$N_4 = 2.78928$
$R = 1.88161$

Unit. $AB := 1$ **Given.** $N_1 := .76258$ $N_2 := 1.21782$ $N_3 := 2.38484$

$N_4 := 2.78928$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

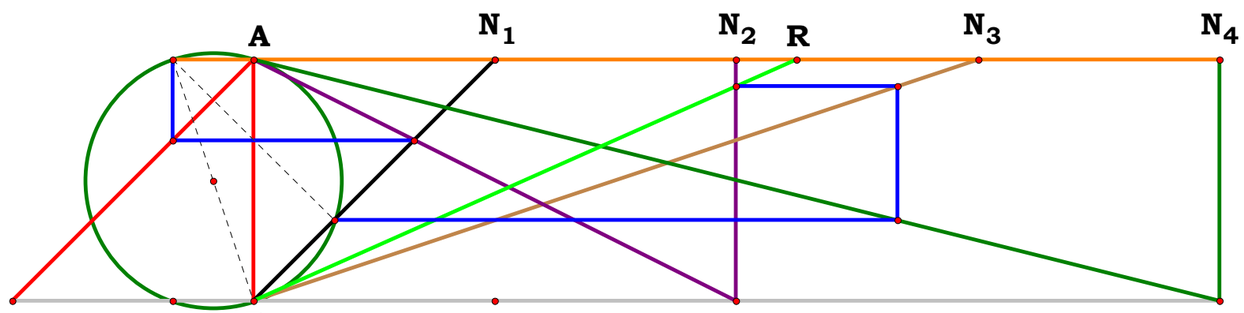
$AC := \frac{N_1}{N_1 + N_2}$ $CN_1 := AC + N_1$

$BN_1 := \sqrt{AB^2 + N_1^2}$ $EN_1 := \frac{N_1 \cdot CN_1}{BN_1}$

$BE := BN_1 - EN_1$ $GH := \frac{BE}{BN_1}$

$BH := N_4 \cdot (AB - GH)$ $FH := \frac{BH}{N_3}$

$R := \frac{N_2}{FH}$ $R = 1.881632$



Definitions.

$$R - \frac{N_2 \cdot N_3 \cdot (N_1 + N_2) \cdot (N_1^2 + 1)}{N_1^2 \cdot N_4 \cdot (N_1 + N_2 + 1)} = 0$$

$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{D \cdot (A^2 + N_u^2) \cdot (A + B)}{B \cdot C \cdot [A \cdot B + N_u \cdot (A + B)]} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{X \cdot Y \cdot p \cdot (W \cdot n + X \cdot m) \cdot (W^2 + m^2)}{W^2 \cdot Z \cdot n \cdot o \cdot (W \cdot n + X \cdot m + m \cdot n)} = 0$$

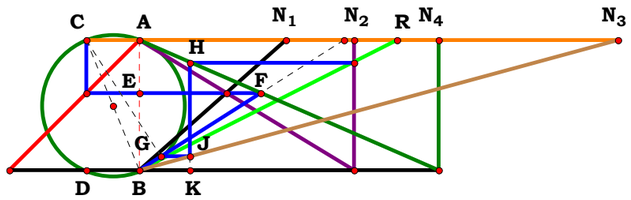
B

$N_1 = 1.00000$ $N_4 = 4.00000$ $\frac{N_2 \cdot N_3 \cdot (N_1 + N_2) \cdot (N_1^2 + 1)}{N_1^2 \cdot N_4 \cdot (N_1 + N_2 + 1)} - R = 0.00000$

$N_2 = 2.00000$ $R = 2.25000$

$N_3 = 3.00000$

4RST7AB3R4



$N_1 = 1.12096$
$N_2 = 1.64399$
$N_3 = 3.67305$
$N_4 = 2.29530$
$R = 1.97967$

Unit. $AB := 1$ **Given.** $N_1 := 1.12096$ $N_2 := 1.64399$ $N_3 := 3.67305$ $N_4 := 2.29530$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

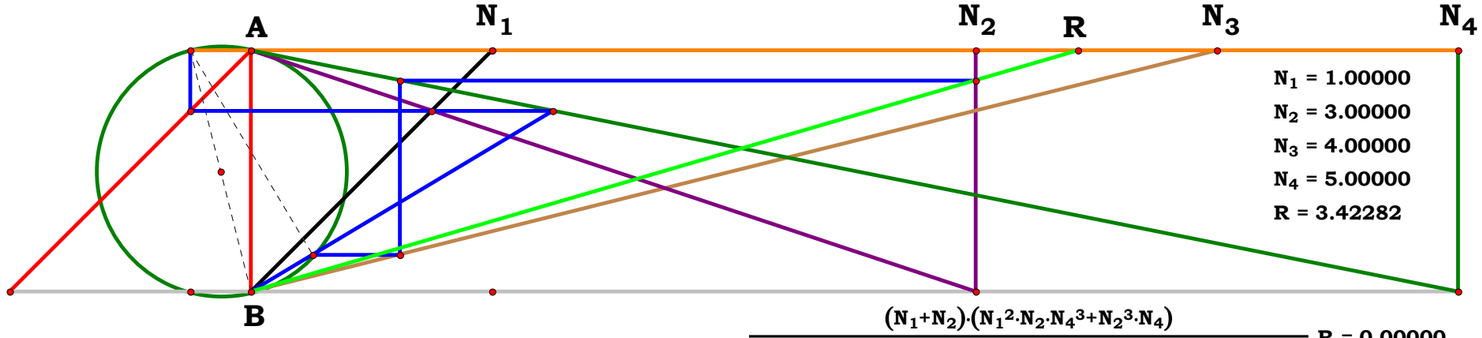
$AC := \frac{N_1}{N_1 + N_2}$ $AE := \frac{N_1}{N_1 + N_2}$ $EF := N_4 \cdot AE$

$AM := \frac{EF}{AB - AE}$ $CM := AM + AC$ $BM := \sqrt{AB^2 + AM^2}$

$GM := \frac{AM \cdot CM}{BM}$ $BG := BM - GM$

$JK := \frac{BG}{BM}$ $BK := N_3 \cdot JK$

$HK := \frac{N_4 - BK}{N_4}$ $R := \frac{N_2}{HK}$ $R = 1.979665$



$N_1 = 1.00000$
$N_2 = 3.00000$
$N_3 = 4.00000$
$N_4 = 5.00000$
$R = 3.42282$

$$\frac{(N_1+N_2)\cdot(N_1^2\cdot N_2\cdot N_4^3+N_2^3\cdot N_4)}{(N_1+N_2)\cdot(N_1^2\cdot N_4^3-N_2^2\cdot N_3)+N_2\cdot N_4\cdot(N_1^2\cdot N_3+N_1\cdot N_2+N_2^2)} - R = 0.00000$$

Definitions.

$$R - \frac{(N_1+N_2)\cdot\left(N_1^2\cdot N_2\cdot N_4^3+N_2^3\cdot N_4\right)}{(N_1+N_2)\cdot\left(N_1^2\cdot N_4^3-N_2^2\cdot N_3\right)+N_2\cdot N_4\cdot\left(N_1^2\cdot N_3+N_1\cdot N_2+N_2^2\right)} = 0$$

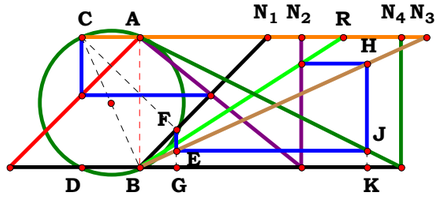
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{C\cdot N_u\cdot(A+B)\cdot\left(A^2\cdot D^2+B^2\cdot N_u^2\right)}{B^3\cdot C\cdot N_u^2\cdot(A+B)+A\cdot B\cdot D^2\cdot\left[A^2\cdot(C-D)+B^2\cdot N_u+A\cdot B\cdot(C-D)\right]} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{X\cdot Z\cdot o\cdot(W\cdot n+X\cdot m)\cdot\left(W^2\cdot Z^2\cdot n^2+X^2\cdot m^2\cdot p^2\right)}{n\cdot\left[Y\cdot X\cdot m\cdot p^2\cdot\left(Z\cdot W^2\cdot n^2-p\cdot W\cdot X\cdot m\cdot n-p\cdot X^2\cdot m^2\right)+Z\cdot o\cdot(W\cdot n+X\cdot m)\cdot\left(W^2\cdot Z^2\cdot n^2+X^2\cdot m^2\cdot p^2\right)\right]} = 0$$

4RST7AB3R5



$N_1 = 0.97567$
$N_2 = 1.23719$
$N_3 = 2.20081$
$N_4 = 2.00473$
$R = 1.56010$

Unit. $AB := 1$ **Given.** $N_1 := .97567$ $N_2 := 1.23719$ $N_3 := 2.20081$

$N_4 := 2.00473$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

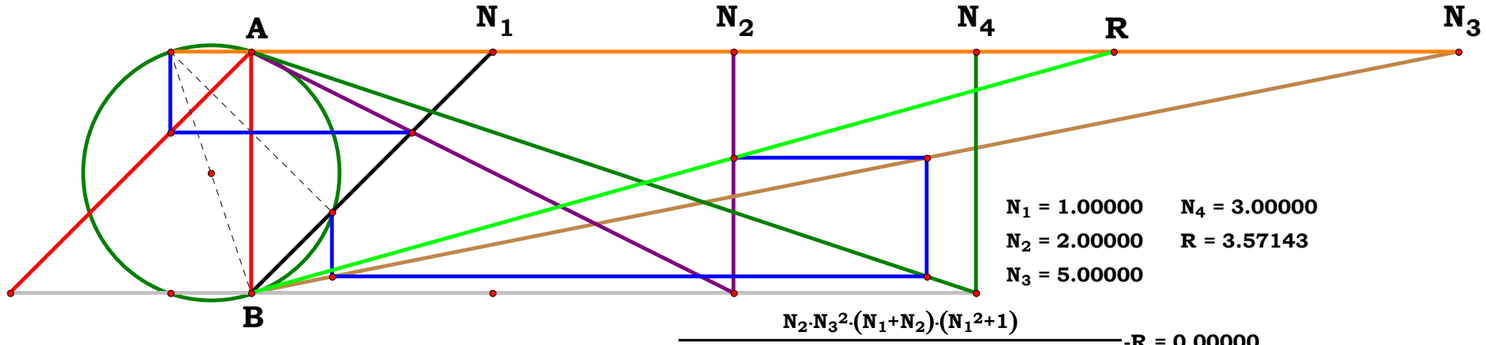
$AC := \frac{N_1}{N_1 + N_2}$ $CN_1 := AC + N_1$

$BN_1 := \sqrt{AB^2 + N_1^2}$ $FN_1 := \frac{N_1 \cdot CN_1}{BN_1}$

$BF := BN_1 - FN_1$ $BG := \frac{N_1 \cdot BF}{BN_1}$

$EG := \frac{BG}{N_3}$ $BK := N_4 \cdot (AB - EG)$

$HK := \frac{BK}{N_3}$ $R := \frac{N_2}{HK}$ $R = 1.560102$



$N_1 = 1.00000$ $N_4 = 3.00000$
$N_2 = 2.00000$ $R = 3.57143$
$N_3 = 5.00000$

$$\frac{N_2 \cdot N_3^2 \cdot (N_1 + N_2) \cdot (N_1^2 + 1)}{N_3 \cdot N_4 \cdot (N_1 + N_2) \cdot (N_1^2 + 1) + N_1 \cdot N_4 \cdot (N_1^2 - N_1 - N_2)} - R = 0.00000$$

Definitions.

$$R - \frac{N_2 \cdot N_3^2 \cdot (N_1 + N_2) \cdot (N_1^2 + 1)}{N_3 \cdot N_4 \cdot (N_1^2 + 1) \cdot (N_1 + N_2) + N_1 \cdot N_4 \cdot (N_1^2 - N_1 - N_2)} = 0$$

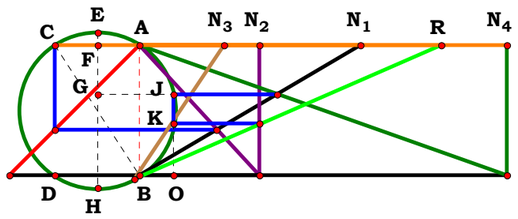
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{D \cdot N_u \cdot (A^2 + N_u^2) \cdot (A + B)}{B \cdot C \cdot \left[(A + B) \cdot N_u^2 + B \cdot C \cdot N_u + A \cdot (A - C) \cdot (A + B) \right]} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{X \cdot Y^2 \cdot p \cdot (W \cdot n + X \cdot m) \cdot (W^2 + m^2)}{Z \cdot n \cdot o \cdot \left[Y \cdot (W^2 + m^2) \cdot (W \cdot n + X \cdot m) + W \cdot o \cdot (n \cdot W^2 - n \cdot W \cdot m - X \cdot m^2) \right]} = 0$$

4RST7AB3R6



$N_1 = 1.69242$
$N_2 = 0.91756$
$N_3 = 0.65108$
$N_4 = 2.81833$
$R = 2.31120$

Unit. $AB := 1$ Given. $N_1 := 1.69242$ $N_2 := .91756$ $N_3 := .65108$

$N_4 := 2.81833$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

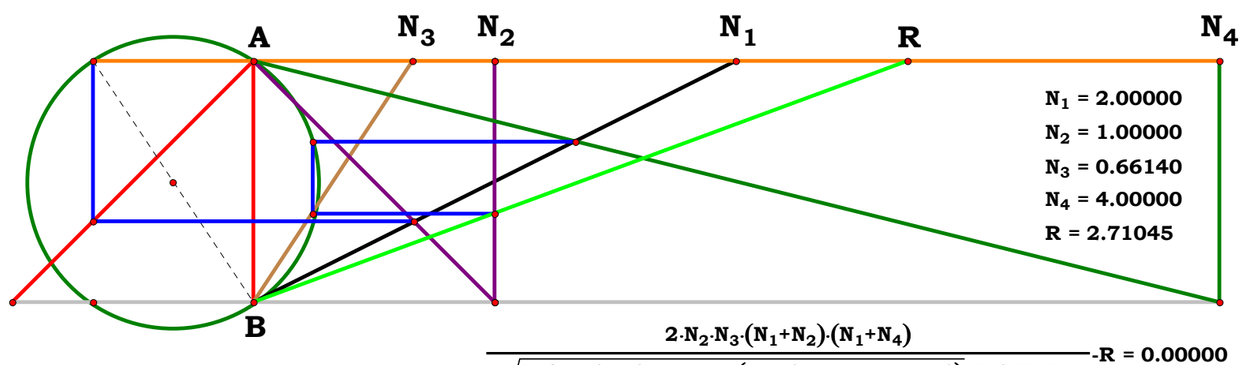
Descriptions.

$AC := \frac{N_1}{N_1 + N_2}$ $EH := \sqrt{AB^2 + AC^2}$ $AF := \frac{AC}{2}$

$EF := \frac{EH - AB}{2}$ $JO := \frac{N_4}{N_4 + N_1}$ $GH := JO + EF$

$GJ := \sqrt{GH \cdot (EH - GH)}$ $BO := GJ - AF$

$KO := \frac{BO}{N_3}$ $R := \frac{N_2}{KO}$ $R = 2.3112$



$N_1 = 2.00000$
$N_2 = 1.00000$
$N_3 = 0.66140$
$N_4 = 4.00000$
$R = 2.71045$

$$\frac{2 \cdot N_2 \cdot N_3 \cdot (N_1+N_2) \cdot (N_1+N_4)}{\sqrt{N_1{}^4+N_1{}^2 \cdot N_4{}^2+2 \cdot N_1 \cdot N_4 \cdot (3 \cdot N_1{}^2+4 \cdot N_1 \cdot N_2+2 \cdot N_2{}^2)}-N_1{}^2-N_1 \cdot N_4} - R = 0.00000$$

Definitions.

$$R - \frac{2 \cdot N_2 \cdot N_3 \cdot (N_1 + N_2) \cdot (N_1 + N_4)}{\sqrt{N_1{}^4 + 6 \cdot N_1{}^3 \cdot N_4 + 8 \cdot N_1{}^2 \cdot N_2 \cdot N_4 + N_1{}^2 \cdot N_4{}^2 + 4 \cdot N_1 \cdot N_2{}^2 \cdot N_4} - N_1{}^2 - N_1 \cdot N_4} = 0$$

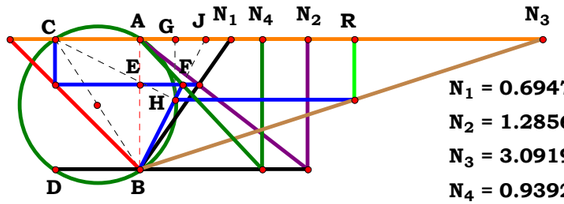
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{2 \cdot N_u{}^2 \cdot (A + B) \cdot (A + D)}{B \cdot C \cdot \left[\sqrt{4 \cdot A^3 \cdot D + A^2 \cdot B^2 + 8 \cdot A^2 \cdot B \cdot D + 6 \cdot A \cdot B^2 \cdot D + B^2 \cdot D^2} - B \cdot (A + D)\right]} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{2 \cdot X \cdot Y \cdot (W \cdot n + X \cdot m) \cdot (W \cdot p + Z \cdot m)}{n \cdot o \cdot \left[\sqrt{W^2 \cdot m^2 \cdot n^2 \cdot Z^2 + 2 \cdot Z \cdot W \cdot m \cdot p \cdot \left(3 \cdot W^2 \cdot n^2 + 4 \cdot W \cdot X \cdot m \cdot n + 2 \cdot X^2 \cdot m^2\right) + W^4 \cdot n^2 \cdot p^2} - W \cdot n \cdot (W \cdot p + Z \cdot m)\right]} = 0$$

4RST7AB4R0



$N_1 = 0.69478$
$N_2 = 1.28562$
$N_3 = 3.09190$
$N_4 = 0.93929$
$R = 1.64829$

Unit. $AB := 1$ Given. $N_1 := .69478$ $N_2 := 1.28562$ $N_3 := 3.09190$

$N_4 := .93929$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

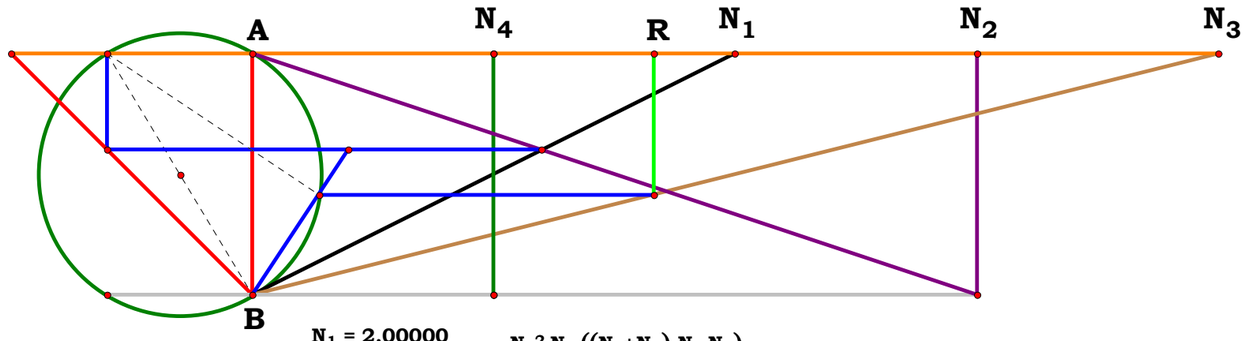
$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

$AC := \frac{N_2}{N_1 + N_2}$ $AE := \frac{N_1}{N_1 + N_2}$ $EF := N_4 \cdot AE$

$AJ := \frac{EF}{AB - AE}$ $BJ := \sqrt{AB^2 + AJ^2}$ $HJ := \frac{AJ + AC}{BJ}$

$HG := \frac{AJ \cdot HJ}{BJ}$ $R := N_3 \cdot (AB - HG)$ $R = 1.648305$



$N_1 = 2.00000$
$N_2 = 3.00000$
$N_3 = 4.00000$
$N_4 = 1.00000$
$R = 1.66154$

$\frac{N_2^2 \cdot N_3 \cdot ((N_1+N_2)-N_1 \cdot N_4)}{(N_1+N_2) \cdot (N_1^2 \cdot N_4^2+N_2^2)} - R = 0.00000$

Definitions.

$$R - \frac{N_2^2 \cdot N_3 \cdot (N_1 + N_2 - N_1 \cdot N_4)}{(N_1 + N_2) \cdot (N_1^2 \cdot N_4^2 + N_2^2)} = 0$$

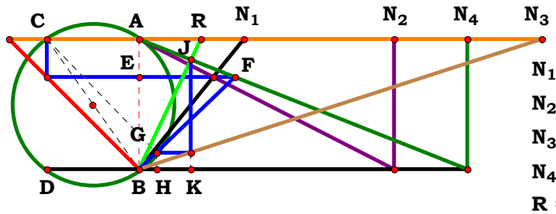
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{A^2 \cdot D \cdot N_u \cdot [D \cdot (A + B) - B \cdot N_u]}{C \cdot (A + B) \cdot (A^2 \cdot D^2 + B^2 \cdot N_u^2)} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{X^2 \cdot Y \cdot m^2 \cdot p \cdot (W \cdot n \cdot p - W \cdot Z \cdot n + X \cdot m \cdot p)}{o \cdot (W \cdot n + X \cdot m) \cdot (W^2 \cdot Z^2 \cdot n^2 + X^2 \cdot m^2 \cdot p^2)} = 0$$

4RST7AB4R1



$N_1 = 0.80133$
$N_2 = 1.95394$
$N_3 = 3.09190$
$N_4 = 2.51808$
$R = 0.47622$

Unit. $AB := 1$ **Given.** $N_1 := .80133$ $N_2 := 1.95394$ $N_3 := 3.09190$

$N_4 := 2.51808$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

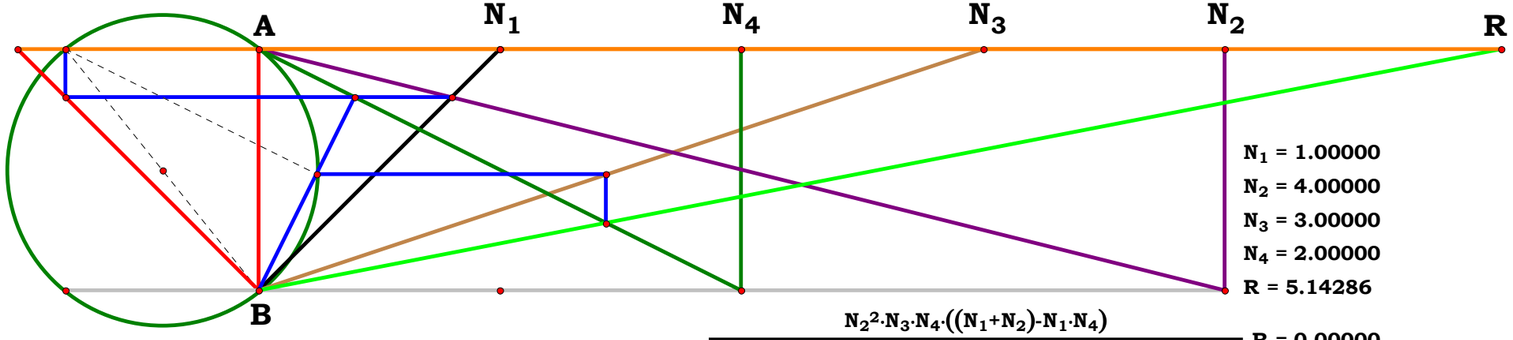
$AC := \frac{N_2}{N_1 + N_2}$ $AE := \frac{N_1}{N_1 + N_2}$ $EF := N_4 \cdot AE$

$AM := \frac{EF}{AB - AE}$ $BM := \sqrt{AM^2 + AB^2}$

$FM := \frac{AM \cdot (AM + AC)}{BM}$ $BG := BM - FM$

$GH := \frac{BG}{BM}$ $BK := N_3 \cdot GH$

$JK := \frac{N_4 - BK}{N_4}$ $R := \frac{BK}{JK}$ $R = 0.476209$



$N_1 = 1.00000$
$N_2 = 4.00000$
$N_3 = 3.00000$
$N_4 = 2.00000$
$R = 5.14286$

$$\frac{N_2^2 \cdot N_3 \cdot N_4 \cdot ((N_1+N_2)-N_1 \cdot N_4)}{(N_1+N_2) \cdot (N_1^2 \cdot N_4^3 - N_2^2 \cdot N_3) + N_2^2 \cdot N_4 \cdot ((N_1+N_2)+N_1 \cdot N_3)} - R = 0.00000$$

Definitions.

$$R - \frac{N_2^2 \cdot N_3 \cdot N_4 \cdot (N_1 + N_2 - N_1 \cdot N_4)}{(N_1 + N_2) \cdot (N_1^2 \cdot N_4^3 - N_2^2 \cdot N_3) + N_2^2 \cdot N_4 \cdot (N_1 + N_2 + N_1 \cdot N_3)} = 0$$

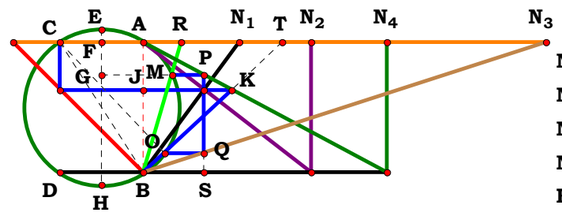
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{A^2 \cdot D \cdot N_u \cdot [D \cdot (A + B) - B \cdot N_u]}{N_u^2 \cdot B^2 \cdot C \cdot (A + B) + [A^3 \cdot D^2 \cdot (C - D) + A^2 \cdot B \cdot D^2 \cdot (C - D + N_u)]} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{X^2 \cdot Y \cdot Z \cdot m^2 \cdot p \cdot (W \cdot n \cdot p - W \cdot Z \cdot n + X \cdot m \cdot p)}{Y \cdot X^2 \cdot m^2 \cdot p^2 \cdot (W \cdot Z \cdot n - W \cdot n \cdot p - X \cdot m \cdot p) + Z \cdot o \cdot (W \cdot n + X \cdot m) \cdot (W^2 \cdot Z^2 \cdot n^2 + X^2 \cdot m^2 \cdot p^2)} = 0$$

4RST7AB4R2



$N_1 = 0.73353$
$N_2 = 1.28562$
$N_3 = 3.09190$
$N_4 = 1.86913$
$R = 0.29052$

Unit. $AB := 1$ **Given.** $N_1 := .73353$ $N_2 := 1.28562$ $N_3 := 3.09190$ $N_4 := 1.86913$

Descriptions.

$$AC := \frac{N_2}{N_1 + N_2} \qquad AJ := \frac{N_1}{N_1 + N_2}$$

$$JK := N_4 \cdot AJ \qquad AT := \frac{JK}{AB - AJ}$$

$$EH := \sqrt{AB^2 + AC^2} \qquad AF := \frac{AC}{2}$$

$$EF := \frac{EH - AB}{2} \qquad BT := \sqrt{AB^2 + AT^2}$$

$$CT := AT + AC \qquad OT := \frac{CT \cdot AT}{BT}$$

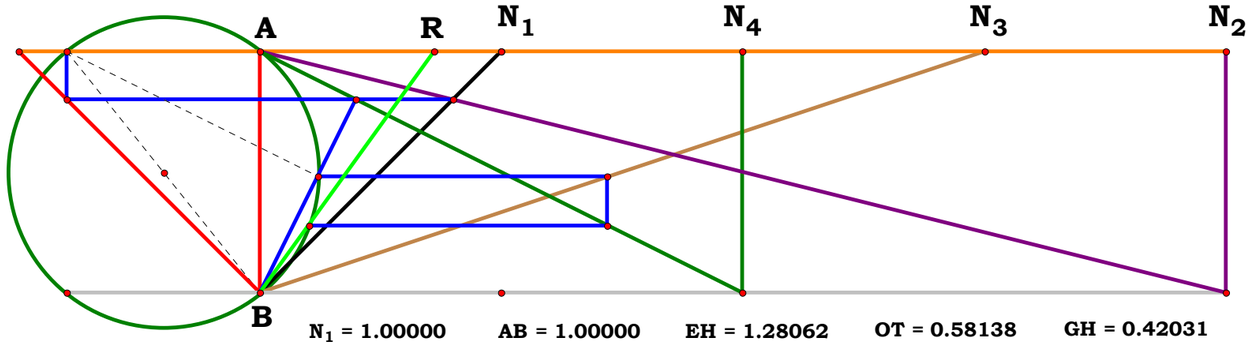
$$BO := BT - OT \qquad OS := \frac{BO}{BT}$$

$$BS := N_3 \cdot OS \qquad PS := \frac{N_4 - BS}{N_4}$$

$$GH := PS + EF \qquad GM := \sqrt{GH \cdot (EH - GH)}$$

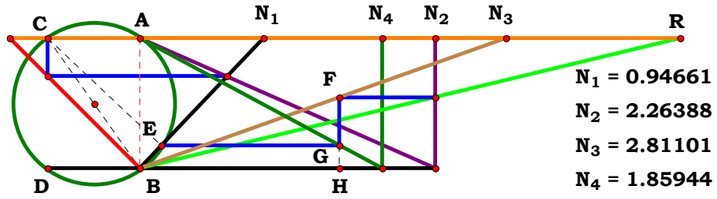
$$R := \frac{GM - AF}{PS} \qquad R = 0.290522$$

Definitions.



$N_1 = 1.00000$ $AB = 1.00000$ $EH = 1.28062$ $OT = 0.58138$ $GH = 0.42031$
$N_2 = 4.00000$ $AC = 0.80000$ $AF = 0.40000$ $BO = 0.53666$ $GM = 0.60133$
$N_3 = 3.00000$ $AJ = 0.20000$ $EF = 0.14031$ $OS = 0.48000$ $R - \frac{GM - AF}{PS} = 0.00000$
$N_4 = 2.00000$ $JK = 0.40000$ $BT = 1.11803$ $BS = 1.44000$
$R = 0.71904$ $AT = 0.50000$ $CT = 1.30000$ $PS = 0.28000$

4RST7AB4R3



$N_1 = 0.94661$
$N_2 = 2.26388$
$N_3 = 2.81101$
$N_4 = 1.85944$
$R = 4.15020$

Unit. $AB := 1$ Given. $N_1 := .94661$ $N_2 := 2.26388$ $N_3 := 2.81101$

$N_4 := 1.85944$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

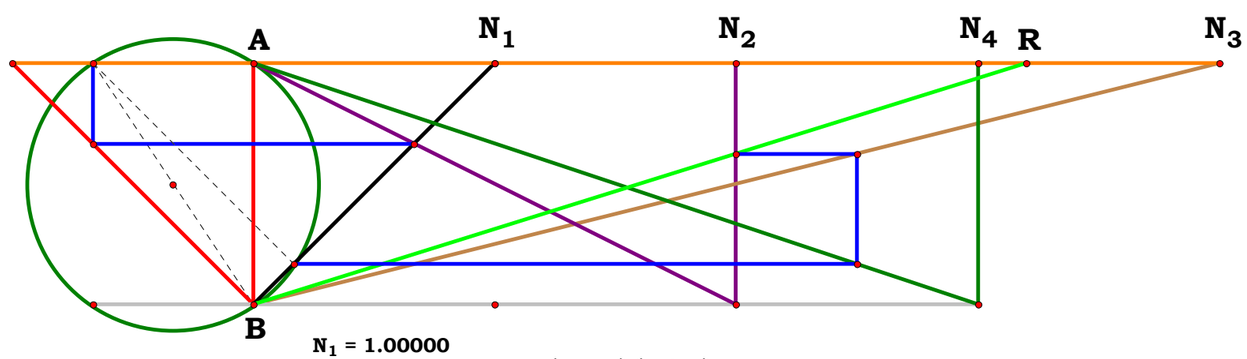
Descriptions.

$AC := \frac{N_2}{N_1 + N_2}$ $CN_1 := AC + N_1$ $BN_1 := \sqrt{AB^2 + N_1{}^2}$

$EN_1 := \frac{N_1 \cdot CN_1}{BN_1}$ $BE := BN_1 - EN_1$

$GH := \frac{BE}{BN_1}$ $BH := N_4 \cdot (AB - GH)$

$FH := \frac{BH}{N_3}$ $R := \frac{N_2}{FH}$ $R = 4.150208$



$N_1 = 1.00000$
$N_2 = 2.00000$
$N_3 = 4.00000$
$N_4 = 3.00000$
$R = 3.20000$

$\frac{N_2 \cdot N_3 \cdot (N_1 + N_2) \cdot (N_1{}^2 + 1)}{N_1 \cdot N_4 \cdot (N_1{}^2 + N_1 \cdot N_2 + N_2)} - R = 0.00000$

Definitions.

$$R - \frac{N_2 \cdot N_3 \cdot (N_1 + N_2) \cdot (N_1{}^2 + 1)}{N_1 \cdot N_4 \cdot (N_1{}^2 + N_1 \cdot N_2 + N_2)} = 0$$

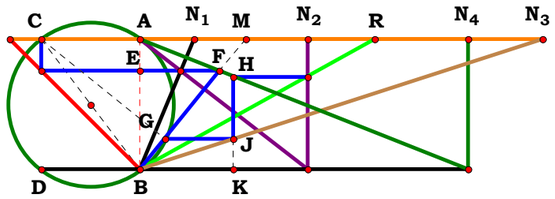
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{D \cdot (A^2 + N_u{}^2) \cdot (A + B)}{B \cdot C \cdot (A^2 + N_u \cdot A + B \cdot N_u)} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{X \cdot Y \cdot p \cdot (W \cdot n + X \cdot m) \cdot (W^2 + m^2)}{W \cdot Z \cdot n \cdot o \cdot (n \cdot W^2 + X \cdot W \cdot m + X \cdot m^2)} = 0$$

4RST7AB4R4



$N_1 = 0.41390$
$N_2 = 1.28562$
$N_3 = 3.09190$
$N_4 = 2.51808$
$R = 1.80200$

Unit. $AB := 1$ Given. $N_1 := .41390$ $N_2 := 1.28562$ $N_3 := 3.09190$

$N_4 := 2.51808$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

$AC := \frac{N_2}{N_1 + N_2}$ $AE := \frac{N_1}{N_1 + N_2}$ $EF := N_4 \cdot AE$

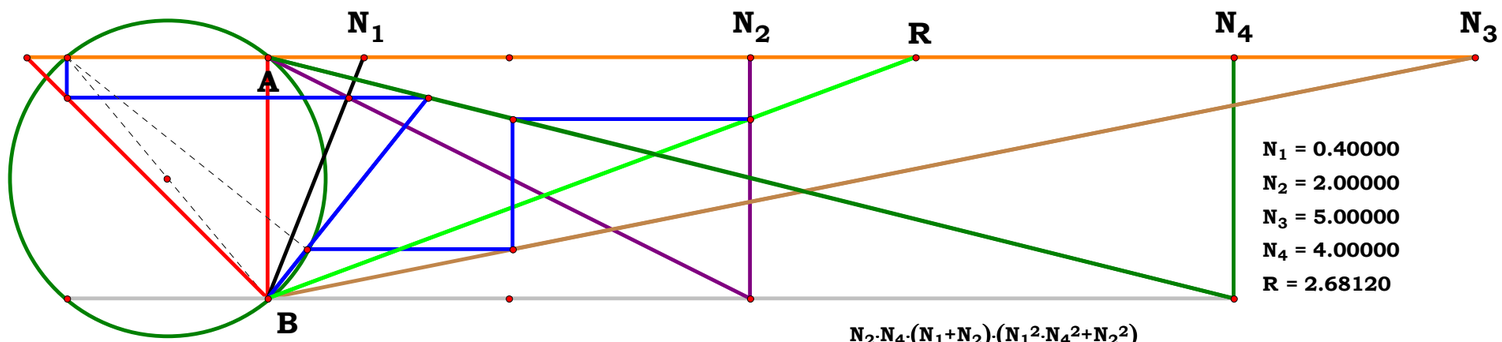
$AM := \frac{EF}{AB - AE}$ $CM := AM + AC$

$BM := \sqrt{AB^2 + AM^2}$ $GM := \frac{AM \cdot CM}{BM}$

$BG := BM - GM$ $JK := \frac{BG}{BM}$

$BK := N_3 \cdot JK$ $HK := \frac{N_4 - BK}{N_4}$

$R := \frac{N_2}{HK}$ $R = 1.801987$



$N_1 = 0.40000$
$N_2 = 2.00000$
$N_3 = 5.00000$
$N_4 = 4.00000$
$R = 2.68120$

$$\frac{N_2 \cdot N_4 \cdot (N_1+N_2) \cdot (N_1^2 \cdot N_4^2 + N_2^2)}{(N_1+N_2) \cdot (N_1^2 \cdot N_4^3 - N_2^2 \cdot N_3) + N_2^2 \cdot N_4 \cdot ((N_1+N_2) + N_1 \cdot N_3)} - R = 0.00000$$

Definitions.

$$R - \frac{(N_1 + N_2) \cdot N_2 \cdot N_4 \cdot (N_1^2 \cdot N_4^2 + N_2^2)}{(N_1 + N_2) \cdot (N_1^2 \cdot N_4^3 - N_2^2 \cdot N_3) + N_2^2 \cdot N_4 \cdot (N_1 + N_2 + N_1 \cdot N_3)} = 0$$

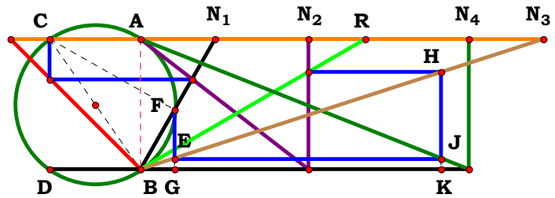
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{C \cdot N_u \cdot (A + B) \cdot (A^2 \cdot D^2 + B^2 \cdot N_u^2)}{N_u^2 \cdot B^3 \cdot C \cdot (A + B) + A^2 \cdot B^2 \cdot D^2 \cdot N_u + A^2 \cdot B \cdot D^2 \cdot (C - D) \cdot (A + B)} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{X \cdot Z \cdot o \cdot (W \cdot n + X \cdot m) \cdot (W^2 \cdot Z^2 \cdot n^2 + X^2 \cdot m^2 \cdot p^2)}{Y \cdot X^2 \cdot m^2 \cdot n \cdot p^2 \cdot (W \cdot Z \cdot n - W \cdot n \cdot p - X \cdot m \cdot p) + Z \cdot n \cdot o \cdot (W \cdot n + X \cdot m) \cdot (W^2 \cdot Z^2 \cdot n^2 + X^2 \cdot m^2 \cdot p^2)} = 0$$

4RST7AB4R5



$N_1 = 0.56887$
$N_2 = 1.28562$
$N_3 = 3.09190$
$N_4 = 2.51808$
$R = 1.72370$

Unit. $AB := 1$ Given. $N_1 := .56887$ $N_2 := 1.28562$ $N_3 := 3.09190$

$N_4 := 2.51808$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

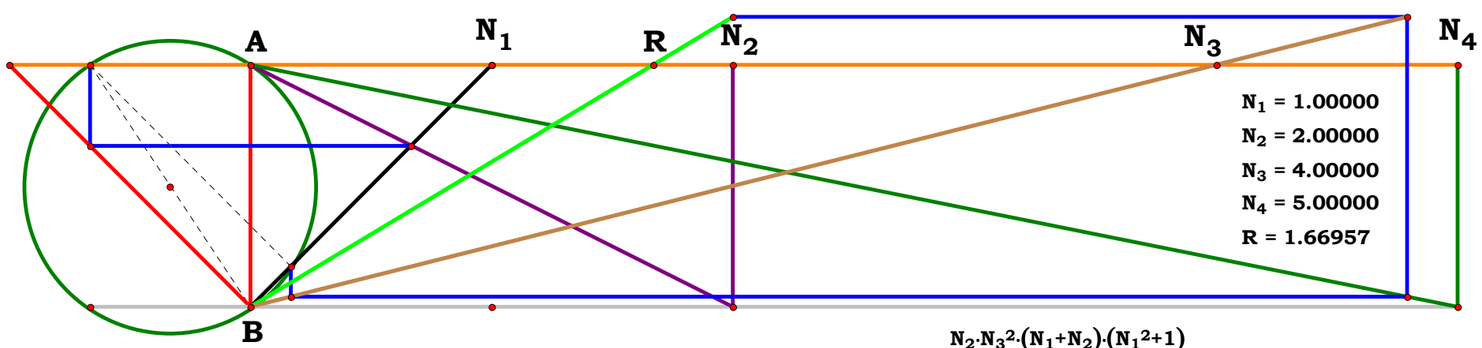
$AC := \frac{N_2}{N_1 + N_2}$ $CN_1 := AC + N_1$

$BN_1 := \sqrt{AB^2 + N_1^2}$ $FN_1 := \frac{N_1 \cdot CN_1}{BN_1}$

$BF := BN_1 - FN_1$ $BG := \frac{N_1 \cdot BF}{BN_1}$

$EG := \frac{BG}{N_3}$ $BK := N_4 \cdot (AB - EG)$

$HK := \frac{BK}{N_3}$ $R := \frac{N_2}{HK}$ $R = 1.723697$



$N_1 = 1.00000$
$N_2 = 2.00000$
$N_3 = 4.00000$
$N_4 = 5.00000$
$R = 1.66957$

$$\frac{N_2 \cdot N_3^2 \cdot (N_1 + N_2) \cdot (N_1^2 + 1)}{N_3 \cdot N_4 \cdot (N_1 + N_2) \cdot (N_1^2 + 1) + N_1 \cdot N_4 \cdot (N_1 \cdot N_2 - (N_1 + N_2))} - R = 0.00000$$

Definitions.

$$R - \frac{N_2 \cdot N_3^2 \cdot (N_1 + N_2) \cdot (N_1^2 + 1)}{N_3 \cdot N_4 \cdot (N_1^2 + 1) \cdot (N_1 + N_2) + N_1 \cdot N_4 \cdot (N_1 \cdot N_2 - N_2 - N_1)} = 0$$

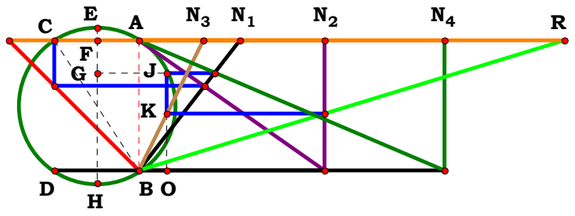
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{D \cdot N_u \cdot (A^2 + N_u^2) \cdot (A + B)}{B \cdot C \cdot [(A + B) \cdot N_u^2 + A \cdot C \cdot N_u + A \cdot (A - C) \cdot (A + B)]} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{X \cdot Y^2 \cdot p \cdot (W \cdot n + X \cdot m) \cdot (W^2 + m^2)}{Z \cdot n \cdot o \cdot [Y \cdot (W^2 + m^2) \cdot (W \cdot n + X \cdot m) + W \cdot m \cdot o \cdot (W \cdot X - W \cdot n - X \cdot m)]} = 0$$

4RST7AB4R6



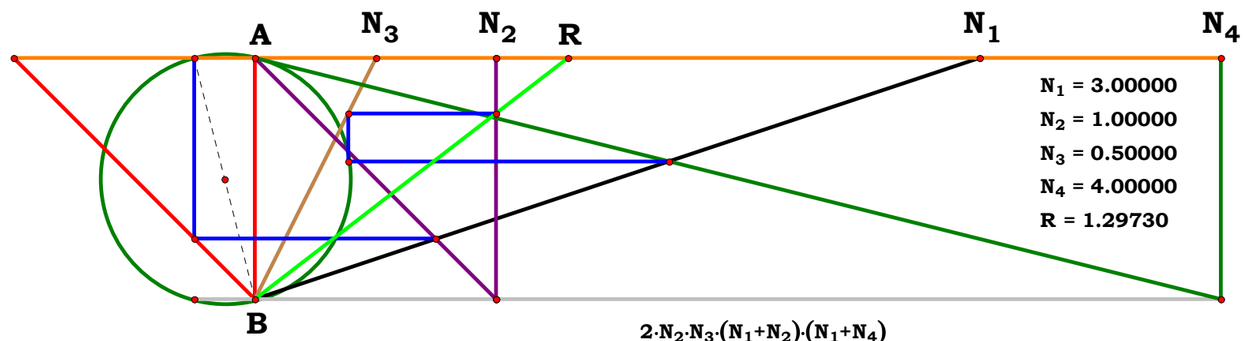
$N_1 = 0.77227$
$N_2 = 1.42122$
$N_3 = 0.49611$
$N_4 = 2.34373$
$R = 3.26696$

Unit. $AB := 1$ Given. $N_1 := .77227$ $N_2 := 1.42122$ $N_3 := .49611$

$N_4 := 2.34373$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$



$N_1 = 3.00000$
$N_2 = 1.00000$
$N_3 = 0.50000$
$N_4 = 4.00000$
$R = 1.29730$

$$\frac{2 \cdot N_2 \cdot N_3 \cdot (N_1+N_2) \cdot (N_1+N_4)}{\sqrt{N_2^2 \cdot N_4^2 + 2 \cdot N_1 \cdot N_4 \cdot (2 \cdot N_1^2 + 4 \cdot N_1 \cdot N_2 + 3 \cdot N_2^2) + N_1^2 \cdot N_2^2} - N_2 \cdot (N_1+N_4)} - R = 0.00000$$

Descriptions.

$AC := \frac{N_2}{N_1 + N_2}$ $EH := \sqrt{AB^2 + AC^2}$

$AF := \frac{AC}{2}$ $EF := \frac{EH - AB}{2}$

$JO := \frac{N_4}{N_4 + N_1}$ $GH := JO + EF$

$GJ := \sqrt{GH \cdot (EH - GH)}$

$BO := GJ - AF$ $KO := \frac{BO}{N_3}$

$R := \frac{N_2}{KO}$ $R = 3.266965$

Definitions.

$$R - \frac{2 \cdot N_2 \cdot N_3 \cdot (N_1 + N_2) \cdot (N_1 + N_4)}{\sqrt{N_2^2 \cdot N_4^2 + 2 \cdot N_1 \cdot N_4 \cdot (2 \cdot N_1^2 + 4 \cdot N_1 \cdot N_2 + 3 \cdot N_2^2) + N_1^2 \cdot N_2^2} - N_2 \cdot (N_1 + N_4)} = 0$$

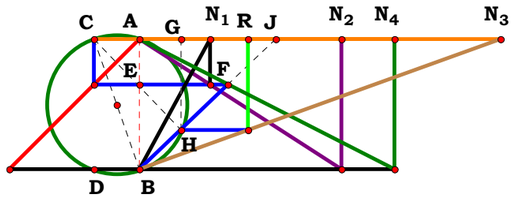
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{2 \cdot N_u^4 \cdot (A+B) \cdot (A+D)}{\sqrt{A} \cdot B \cdot C \cdot N_u^2 \cdot \left[\sqrt{A^3 + 6 \cdot D \cdot A^2 + A \cdot D \cdot (8 \cdot B + D) + 4 \cdot B^2 \cdot D} - A^{\frac{3}{2}} - \sqrt{A} \cdot D\right]} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{2 \cdot X \cdot Y \cdot (W \cdot n + X \cdot m) \cdot (W \cdot p + Z \cdot m)}{\sqrt{m} \cdot n \cdot o \cdot \left[\sqrt{4 \cdot Z \cdot n^2 \cdot p \cdot W^3 + W^2 \cdot X \cdot m \cdot p \cdot (X \cdot p + 8 \cdot Z \cdot n) + X^2 \cdot Z \cdot m^2 \cdot (6 \cdot W \cdot p + Z \cdot m)} - \sqrt{m} \cdot X \cdot (W \cdot p + Z \cdot m)\right]} = 0$$

4RST7AB5R0



$N_1 = 0.53981$
$N_2 = 1.54713$
$N_3 = 2.77227$
$N_4 = 1.95630$
$R = 0.83763$

Unit. $AB := 1$ Given. $N_1 := .53981$ $N_2 := 1.54713$ $N_3 := 2.77227$

$N_4 := 1.95630$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

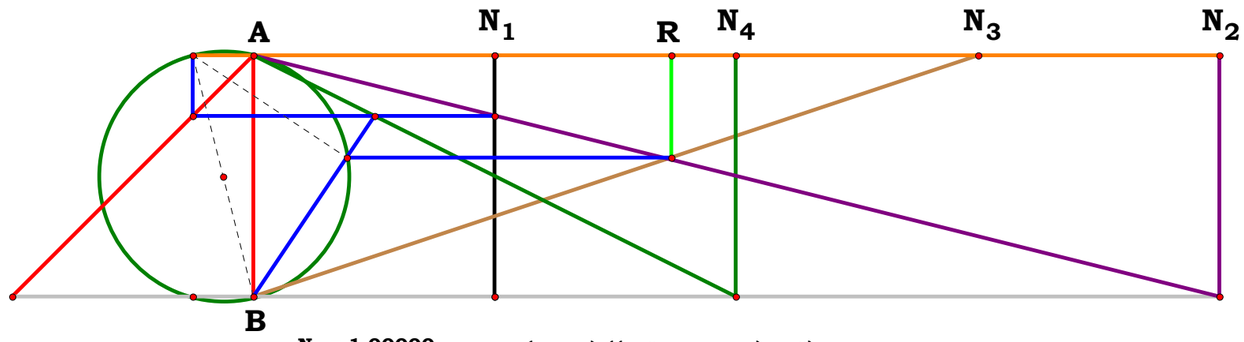
Descriptions.

$AC := \frac{N_1}{N_2}$ $AE := \frac{N_1}{N_2}$ $EF := N_4 \cdot AE$

$AJ := \frac{EF}{AB - AE}$ $BJ := \sqrt{AB^2 + AJ^2}$

$HJ := \frac{AJ + AC}{BJ}$ $HG := \frac{AJ \cdot HJ}{BJ}$

$R := N_3 \cdot (AB - HG)$ $R = 0.837627$



$N_1 = 1.00000$
$N_2 = 4.00000$
$N_3 = 3.00000$
$N_4 = 2.00000$
$R = 1.73077$

$\frac{N_3 \cdot (N_1 - N_2) \cdot ((N_1^2 \cdot N_4 + N_1 \cdot N_2) - N_2^2)}{N_2 \cdot (((N_1^2 \cdot N_4^2 + N_1^2) - 2 \cdot N_1 \cdot N_2) + N_2^2)} - R = 0.00000$

Definitions.

$$R - \frac{N_3 \cdot (N_1 - N_2) \cdot \left(N_1^2 \cdot N_4 + N_1 \cdot N_2 - N_2^2\right)}{N_2 \cdot \left(N_1^2 \cdot N_4^2 + N_1^2 - 2 \cdot N_1 \cdot N_2 + N_2^2\right)} = 0$$

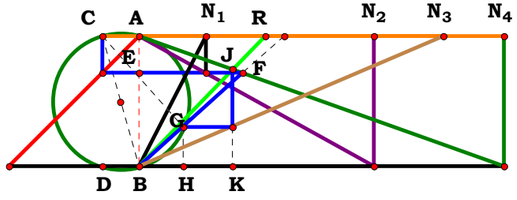
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{D \cdot N_u \cdot (A - B) \cdot \left(A^2 \cdot D - D \cdot A \cdot B - N_u \cdot B^2\right)}{A \cdot C \cdot \left(A^2 \cdot D^2 - 2 \cdot A \cdot B \cdot D^2 + B^2 \cdot D^2 + B^2 \cdot N_u^2\right)} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{Y \cdot p \cdot (W \cdot n - X \cdot m) \cdot \left(Z \cdot W^2 \cdot n^2 + p \cdot W \cdot X \cdot m \cdot n - p \cdot X^2 \cdot m^2\right)}{X \cdot m \cdot o \cdot \left[W^2 \cdot n^2 \cdot \left(Z^2 + p^2\right) + X \cdot m \cdot p^2 \cdot (X \cdot m - 2 \cdot W \cdot n)\right]} = 0$$

4RST7AB5R1



$N_1 = 0.51075$
$N_2 = 1.79896$
$N_3 = 2.33641$
$N_4 = 2.79896$
$R = 0.96414$

Unit. $AB := 1$ Given. $N_1 := .51075$ $N_2 := 1.79896$ $N_3 := 2.33641$

$N_4 := 2.79896$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

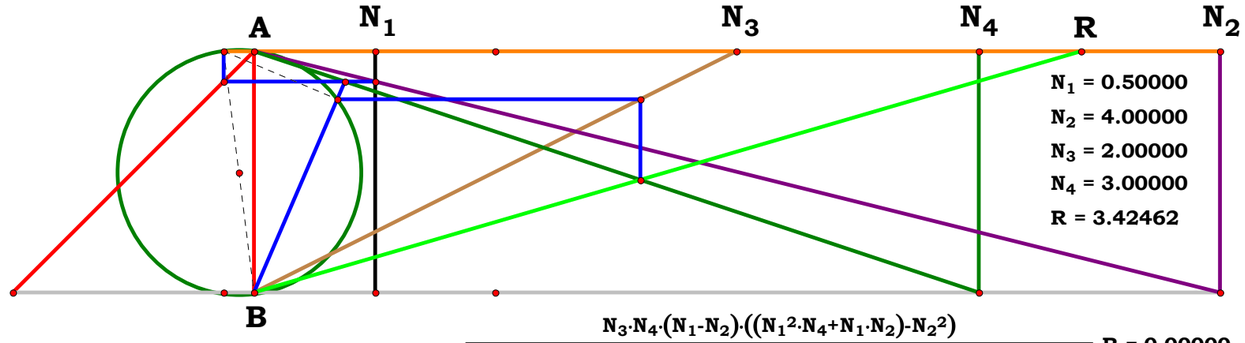
$AC := \frac{N_1}{N_2}$ $AE := \frac{N_1}{N_2}$ $EF := N_4 \cdot AE$

$AM := \frac{EF}{AB - AE}$ $BM := \sqrt{AM^2 + AB^2}$

$FM := \frac{AM \cdot (AM + AC)}{BM}$ $BG := BM - FM$

$GH := \frac{BG}{BM}$ $BK := N_3 \cdot GH$

$JK := \frac{N_4 - BK}{N_4}$ $R := \frac{BK}{JK}$ $R = 0.96416$



$N_1 = 0.50000$
$N_2 = 4.00000$
$N_3 = 2.00000$
$N_4 = 3.00000$
$R = 3.42462$

$$\frac{N_3 \cdot N_4 \cdot (N_1 - N_2) \cdot ((N_1^2 \cdot N_4 + N_1 \cdot N_2) - N_2^2)}{N_1^2 \cdot N_2 \cdot N_4^3 - N_4 \cdot (N_1 - N_2) \cdot ((N_1^2 \cdot N_3 - N_1 \cdot N_2) + N_2^2) - N_2 \cdot N_3 \cdot (N_1 - N_2)^2} - R = 0.00000$$

Definitions.

$$R - \frac{N_3 \cdot N_4 \cdot (N_1 - N_2) \cdot (N_1^2 \cdot N_4 + N_1 \cdot N_2 - N_2^2)}{N_1^2 \cdot N_2 \cdot N_4^3 - N_4 \cdot (N_1 - N_2) \cdot (N_1^2 \cdot N_3 - N_1 \cdot N_2 + N_2^2) - N_2 \cdot N_3 \cdot (N_1 - N_2)^2} = 0$$

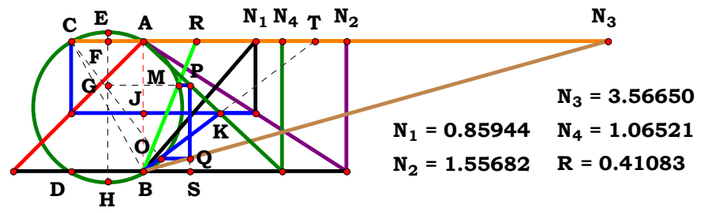
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{D \cdot N_u \cdot (A - B) \cdot (D \cdot A^2 - D \cdot A \cdot B - N_u \cdot B^2)}{A \cdot B^2 \cdot C \cdot N_u^2 + N_u \cdot B^2 \cdot D^2 \cdot (A - B) + A \cdot D^2 \cdot (A - B)^2 \cdot (C - D)} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{Y \cdot Z \cdot p \cdot (W \cdot n - X \cdot m) \cdot (Z \cdot W^2 \cdot n^2 + p \cdot W \cdot X \cdot m \cdot n - p \cdot X^2 \cdot m^2)}{W^2 \cdot X \cdot m \cdot n^2 \cdot o \cdot Z^3 - Z \cdot p^2 \cdot (W \cdot n - X \cdot m) \cdot (Y \cdot W^2 \cdot n^2 - o \cdot W \cdot X \cdot m \cdot n + o \cdot X^2 \cdot m^2) - X \cdot Y \cdot m \cdot p^3 \cdot (W \cdot n - X \cdot m)^2} = 0$$

4RST7AB5R2



$N_3 = 3.56650$
$N_1 = 0.85944$ $N_4 = 1.06521$
$N_2 = 1.55682$ $R = 0.41083$

Unit. $AB := 1$ **Given.** $N_1 := .85944$ $N_2 := 1.55682$ $N_3 := 3.56650$ $N_4 := 1.06521$

Descriptions.

$$AC := \frac{N_1}{N_2} \qquad AJ := \frac{N_1}{N_2}$$

$$JK := N_4 \cdot AJ \qquad AT := \frac{JK}{AB - AJ}$$

$$EH := \sqrt{AB^2 + AC^2} \qquad AF := \frac{AC}{2}$$

$$EF := \frac{EH - AB}{2} \qquad BT := \sqrt{AB^2 + AT^2}$$

$$CT := AT + AC \qquad OT := \frac{CT \cdot AT}{BT}$$

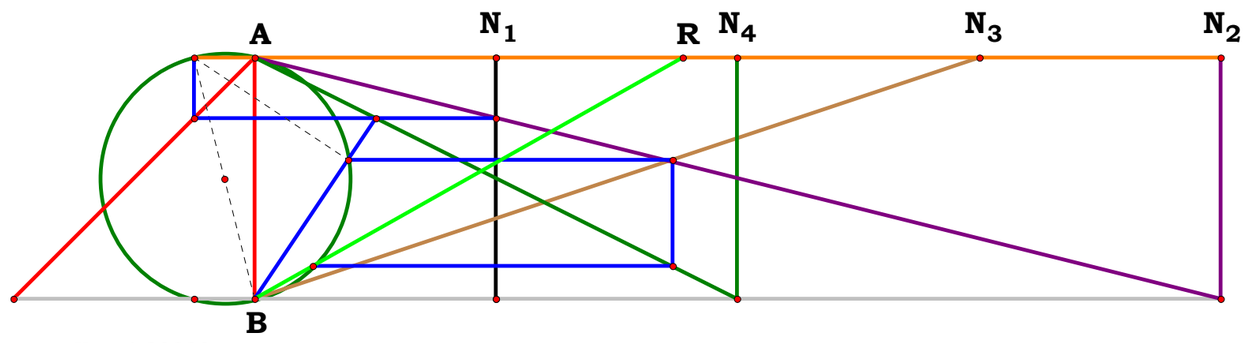
$$BO := BT - OT \qquad OS := \frac{BO}{BT}$$

$$BS := N_3 \cdot OS \qquad PS := \frac{N_4 - BS}{N_4}$$

$$GH := PS + EF \qquad GM := \sqrt{GH \cdot (EH - GH)}$$

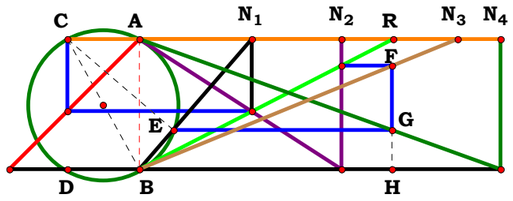
$$R := \frac{GM - AF}{PS} \qquad R = 0.410843$$

Definitions.



$N_1 = 1.00000$ $AB = 1.00000$ $EH = 1.03078$ $OT = 0.50848$ $GH = 0.15000$
$N_2 = 4.00000$ $AC = 0.25000$ $AF = 0.12500$ $BO = 0.69338$ $GM = 0.36348$
$N_3 = 3.00000$ $AJ = 0.25000$ $EF = 0.01539$ $OS = 0.57692$ $R\text{-}\frac{GM\text{-}AF}{PS} = 0.00000$
$N_4 = 2.00000$ $JK = 0.50000$ $BT = 1.20185$ $BS = 1.73077$
$R = 1.77158$ $AT = 0.66667$ $CT = 0.91667$ $PS = 0.13462$

4RST7AB5R3



$N_1 = 0.85944$
$N_2 = 1.54713$
$N_3 = 2.44295$
$N_4 = 2.76991$
$R = 1.95088$

Unit. $AB := 1$ **Given.** $N_1 := .85944$ $N_2 := 1.54713$ $N_3 := 2.44295$ $N_4 := 2.76991$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

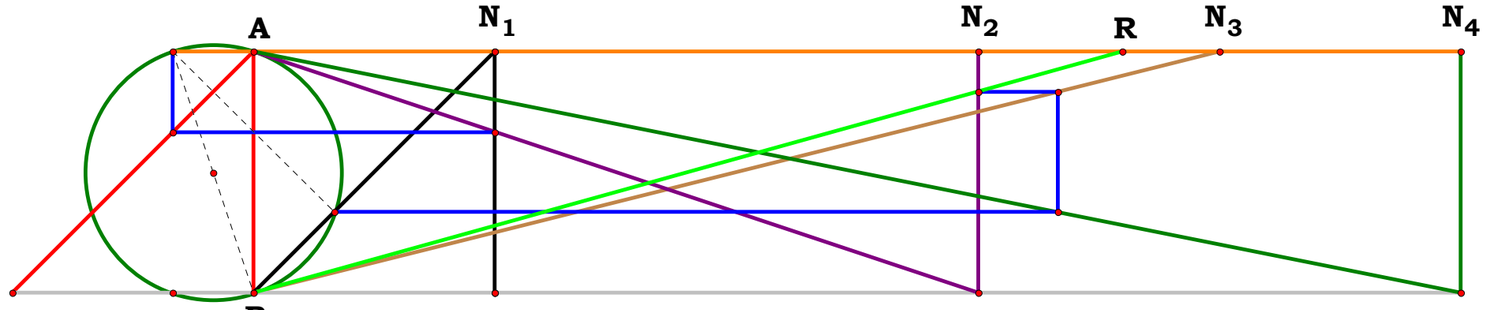
$AC := \frac{N_1}{N_2}$ $CN_1 := AC + N_1$

$BN_1 := \sqrt{AB^2 + N_1^2}$ $EN_1 := \frac{N_1 \cdot CN_1}{BN_1}$

$BE := BN_1 - EN_1$ $GH := \frac{BE}{BN_1}$

$BH := N_4 \cdot (AB - GH)$ $FH := \frac{BH}{N_3}$

$R := \frac{N_2}{FH}$ $R = 1.950874$



$N_1 = 1.00000$
$N_2 = 3.00000$
$N_3 = 4.00000$
$N_4 = 5.00000$
$R = 3.60000$

$\frac{N_2^2 \cdot N_3 \cdot (N_1^2+1)}{N_1^2 \cdot N_4 \cdot (N_2+1)} - R = 0.00000$

Definitions.

$$R - \frac{N_2^2 \cdot N_3 \cdot \left(N_1^2 + 1\right)}{N_1^2 \cdot N_4 \cdot \left(N_2 + 1\right)} = 0$$

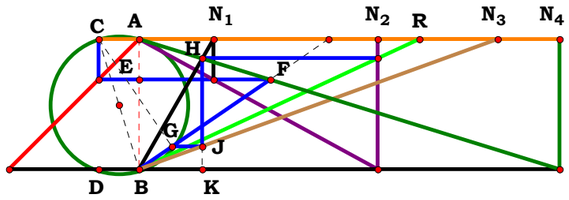
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{D \cdot \left(A^2 + N_u^2\right)}{B \cdot C \cdot \left(B + N_u\right)} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{X^2 \cdot Y \cdot p \cdot \left(W^2 + m^2\right)}{W^2 \cdot Z \cdot n \cdot o \cdot (X + n)} = 0$$

4RST7AB5R4



$N_1 = 0.56887$
$N_2 = 1.82802$
$N_3 = 2.75290$
$N_4 = 3.22514$
$R = 2.14906$

Unit. $AB := 1$ Given. $N_1 := .56887$ $N_2 := 1.82802$ $N_3 := 2.75290$

$N_4 := 3.22514$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

$AC := \frac{N_1}{N_2}$ $AE := \frac{N_1}{N_2}$ $EF := N_4 \cdot AE$

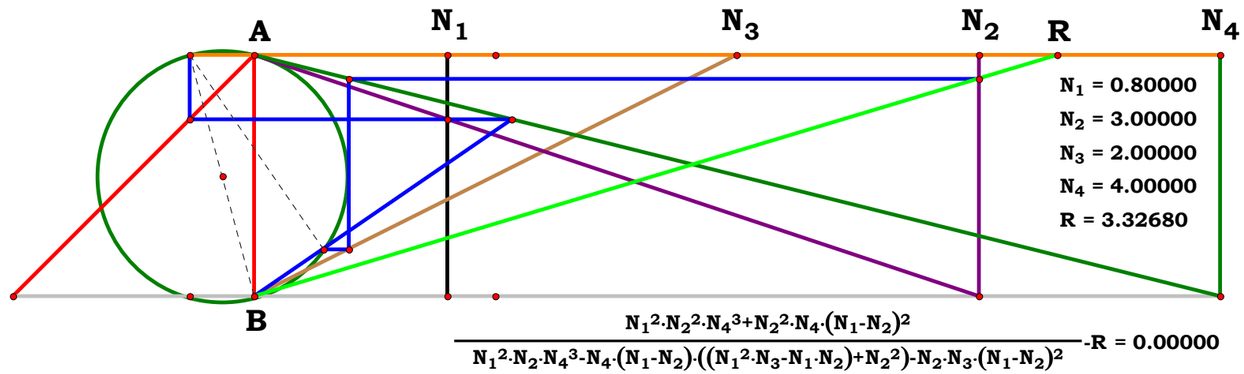
$AM := \frac{EF}{AB - AE}$ $CM := AM + AC$

$BM := \sqrt{AB^2 + AM^2}$ $GM := \frac{AM \cdot CM}{BM}$

$BG := BM - GM$ $JK := \frac{BG}{BM}$

$BK := N_3 \cdot JK$ $HK := \frac{N_4 - BK}{N_4}$

$R := \frac{N_2}{HK}$ $R = 2.149049$



$N_1 = 0.80000$
$N_2 = 3.00000$
$N_3 = 2.00000$
$N_4 = 4.00000$
$R = 3.32680$

$$\frac{N_1^2 \cdot N_2^2 \cdot N_4^3 + N_2^2 \cdot N_4 \cdot (N_1 - N_2)^2}{N_1^2 \cdot N_2 \cdot N_4^3 - N_4 \cdot (N_1 - N_2) \cdot ((N_1^2 \cdot N_3 - N_1 \cdot N_2) + N_2^2) - N_2 \cdot N_3 \cdot (N_1 - N_2)^2} - R = 0.00000$$

Definitions.

$$R - \frac{N_1^2 \cdot N_2^2 \cdot N_4^3 + N_2^2 \cdot N_4 \cdot (N_1 - N_2)^2}{N_1^2 \cdot N_2 \cdot N_4^3 - N_4 \cdot (N_1 - N_2) \cdot (N_1^2 \cdot N_3 - N_1 \cdot N_2 + N_2^2) - N_2 \cdot N_3 \cdot (N_1 - N_2)^2} = 0$$

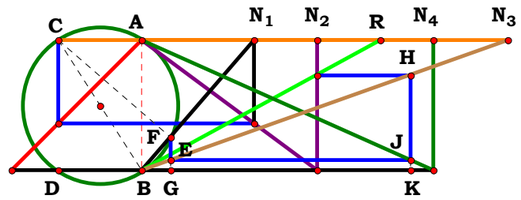
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{A \cdot C \cdot N_u \cdot (A^2 \cdot D^2 - 2 \cdot A \cdot B \cdot D^2 + B^2 \cdot D^2 + B^2 \cdot N_u^2)}{A^2 \cdot B \cdot D^2 \cdot (A - 2 \cdot B) \cdot (C - D) + A \cdot B^3 \cdot (D^2 \cdot N_u - D^3 + C \cdot D^2 + C \cdot N_u^2) - B^4 \cdot D^2 \cdot N_u} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{W^2 \cdot X^2 \cdot m \cdot n^2 \cdot o \cdot Z^3 + Z \cdot X^2 \cdot m \cdot o \cdot p^2 \cdot (W \cdot n - X \cdot m)^2}{W^2 \cdot X \cdot m \cdot n^3 \cdot o \cdot Z^3 - Z \cdot n \cdot p^2 \cdot (W \cdot n - X \cdot m) \cdot (Y \cdot W^2 \cdot n^2 - o \cdot W \cdot X \cdot m \cdot n + o \cdot X^2 \cdot m^2) - X \cdot Y \cdot m \cdot n \cdot p^3 \cdot (W \cdot n - X \cdot m)^2} = 0$$

4RST7AB5R5



$N_1 = 0.85944$
$N_2 = 1.34373$
$N_3 = 2.81101$
$N_4 = 2.23719$
$R = 1.83359$

Unit. $AB := 1$ Given. $N_1 := .85944$ $N_2 := 1.34373$ $N_3 := 2.81101$

$N_4 := 2.23719$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

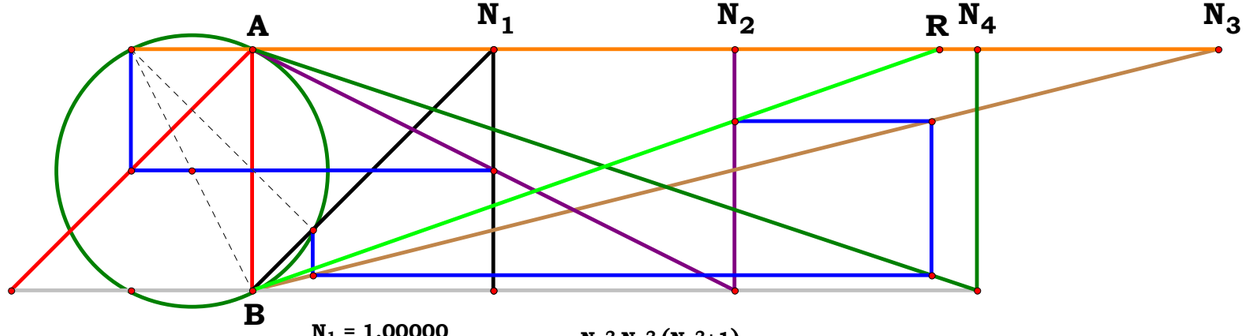
$AC := \frac{N_1}{N_2}$ $CN_1 := AC + N_1$

$BN_1 := \sqrt{AB^2 + N_1^2}$ $FN_1 := \frac{N_1 \cdot CN_1}{BN_1}$

$BF := BN_1 - FN_1$ $BG := \frac{N_1 \cdot BF}{BN_1}$

$EG := \frac{BG}{N_3}$ $BK := N_4 \cdot (AB - EG)$

$HK := \frac{BK}{N_3}$ $R := \frac{N_2}{HK}$ $R = 1.833581$



$N_1 = 1.00000$
$N_2 = 2.00000$
$N_3 = 4.00000$
$N_4 = 3.00000$
$R = 2.84444$

$$\frac{N_2^2 \cdot N_3^2 \cdot (N_1^2+1)}{N_2 \cdot N_3 \cdot N_4 \cdot (N_1^2+1) + N_1 \cdot N_4 \cdot (N_1^2 - N_2)} - R = 0.00000$$

Definitions.

$$R - \frac{N_2^2 \cdot N_3^2 \cdot (N_1^2 + 1)}{N_2 \cdot N_3 \cdot N_4 \cdot (N_1^2 + 1) + N_1 \cdot N_4 \cdot (N_1^2 - N_2)} = 0$$

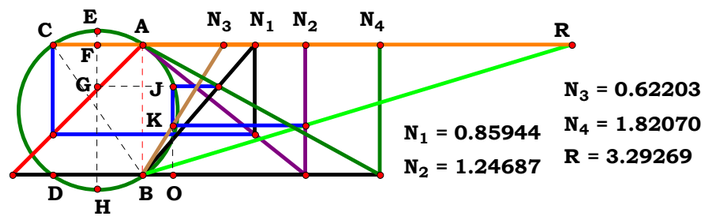
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{A \cdot D \cdot N_u \cdot (A^2 + N_u^2)}{A^2 \cdot B \cdot C \cdot (A - C) + B \cdot C \cdot N_u \cdot (B \cdot C + A \cdot N_u)} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{X^2 \cdot Y^2 \cdot m \cdot p \cdot (W^2 + m^2)}{Y \cdot X \cdot Z \cdot m \cdot n \cdot o \cdot (W^2 + m^2) + W \cdot Z \cdot n \cdot o^2 \cdot (W^2 \cdot n - X \cdot m^2)} = 0$$

4RST7AB5R6



Unit. $AB := 1$ Given. $N_1 := .85944$ $N_2 := 1.24687$ $N_3 := .62203$

$N_4 := 1.82070$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

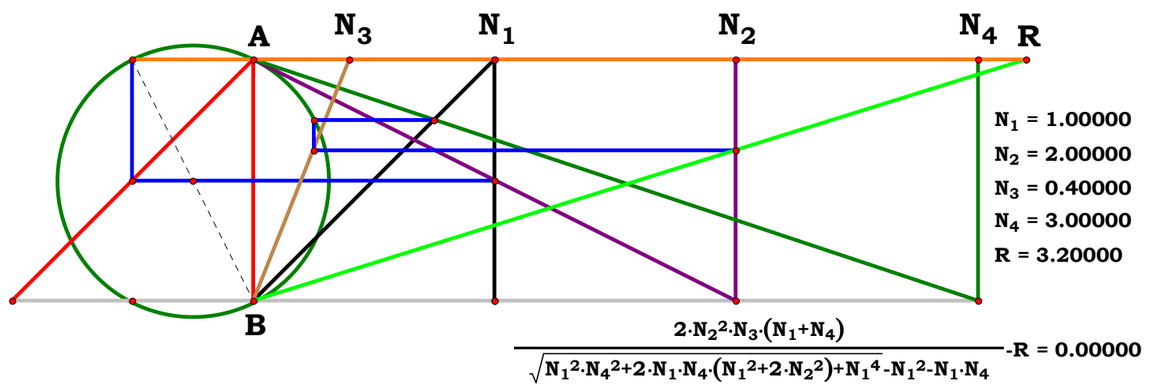
$AC := \frac{N_1}{N_2}$ $EH := \sqrt{AB^2 + AC^2}$

$AF := \frac{AC}{2}$ $EF := \frac{EH - AB}{2}$

$JO := \frac{N_4}{N_4 + N_1}$ $GH := JO + EF$

$GJ := \sqrt{GH \cdot (EH - GH)}$ $BO := GJ - AF$

$KO := \frac{BO}{N_3}$ $R := \frac{N_2}{KO}$ $R = 3.29271$



Definitions.

$$R - \frac{2 \cdot N_2^2 \cdot N_3 \cdot (N_1 + N_4)}{\sqrt{N_1^2 \cdot N_4^2 + 2 \cdot N_1 \cdot N_4 \cdot (N_1^2 + 2 \cdot N_2^2) + N_1^4} - N_1^2 - N_1 \cdot N_4} = 0$$

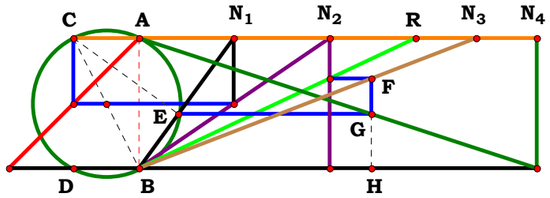
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{2 \cdot A \cdot N_u^2 \cdot (A + D)}{B \cdot C \cdot \left(\sqrt{4 \cdot A^3 \cdot D + A^2 \cdot B^2 + 2 \cdot A \cdot B^2 \cdot D + B^2 \cdot D^2} - A \cdot B - B \cdot D\right)} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{2 \cdot X^2 \cdot Y \cdot m \cdot (W \cdot p + Z \cdot m)}{n \cdot o \cdot \left[\sqrt{W^2 \cdot m^2 \cdot n^2 \cdot Z^2 + 2 \cdot Z \cdot W \cdot m \cdot p \cdot \left(W^2 \cdot n^2 + 2 \cdot X^2 \cdot m^2\right) + W^4 \cdot n^2 \cdot p^2} - W \cdot n \cdot (W \cdot p + Z \cdot m)\right]} = 0$$

4RST7AB6R3



$N_1 = 0.72384$
$N_2 = 1.45996$
$N_3 = 2.58824$
$N_4 = 3.05079$
$R = 2.12346$

Unit. $AB := 1$ Given. $N_1 := .72384$ $N_2 := 1.45996$ $N_3 := 2.58824$

$N_4 := 3.05079$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

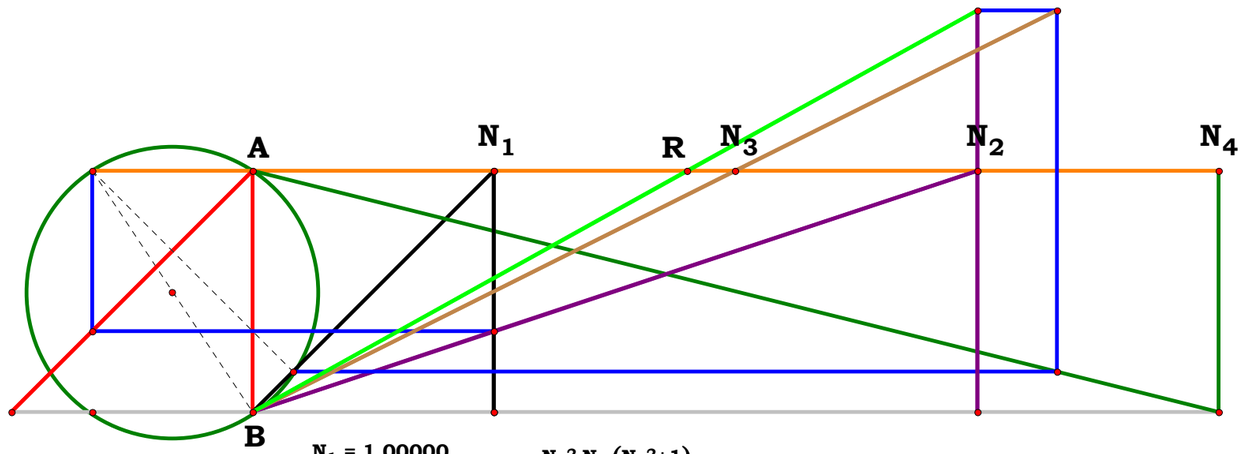
$AC := \frac{N_2 - N_1}{N_2}$ $CN_1 := AC + N_1$

$BN_1 := \sqrt{AB^2 + N_1^2}$ $EN_1 := \frac{N_1 \cdot CN_1}{BN_1}$

$BE := BN_1 - EN_1$ $GH := \frac{BE}{BN_1}$

$BH := N_4 \cdot (AB - GH)$ $FH := \frac{BH}{N_3}$

$R := \frac{N_2}{FH}$ $R = 2.123466$



$N_1 = 1.00000$
$N_2 = 3.00000$
$N_3 = 2.00000$
$N_4 = 4.00000$
$R = 1.80000$

$\frac{N_2^2 \cdot N_3 \cdot (N_1^2+1)}{N_1 \cdot N_4 \cdot ((N_2-N_1)+N_1 \cdot N_2)} - R = 0.00000$

Definitions.

$R - \frac{N_2^2 \cdot N_3 \cdot \left(N_1^2 + 1\right)}{N_1 \cdot N_4 \cdot \left(N_2 - N_1 + N_1 \cdot N_2\right)} = 0$

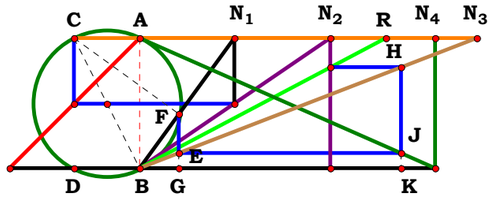
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$R - \frac{D \cdot \left(A^2 + N_u^2\right)}{B \cdot C \cdot \left(A - B + N_u\right)} = 0$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$R - \frac{X^2 \cdot Y \cdot p \cdot \left(W^2 + m^2\right)}{W \cdot Z \cdot n \cdot o \cdot (W \cdot X - W \cdot n + X \cdot m)} = 0$

4RST7AB6R5



$N_1 = 0.72384$
$N_2 = 1.45996$
$N_3 = 2.58824$
$N_4 = 2.26624$
$R = 1.88734$

Unit. $AB := 1$ Given. $N_1 := .72384$ $N_2 := 1.45996$ $N_3 := 2.58824$

$N_4 := 2.26624$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

$$AC := \frac{N_2 - N_1}{N_2} \qquad CN_1 := AC + N_1$$

$$BN_1 := \sqrt{AB^2 + N_1^2} \qquad FN_1 := \frac{N_1 \cdot CN_1}{BN_1}$$

$$BF := BN_1 - FN_1 \qquad BG := \frac{N_1 \cdot BF}{BN_1}$$

$$EG := \frac{BG}{N_3} \qquad BK := N_4 \cdot (AB - EG)$$

$$HK := \frac{BK}{N_3} \qquad R := \frac{N_2}{HK} \qquad R = 1.887347$$

Definitions.

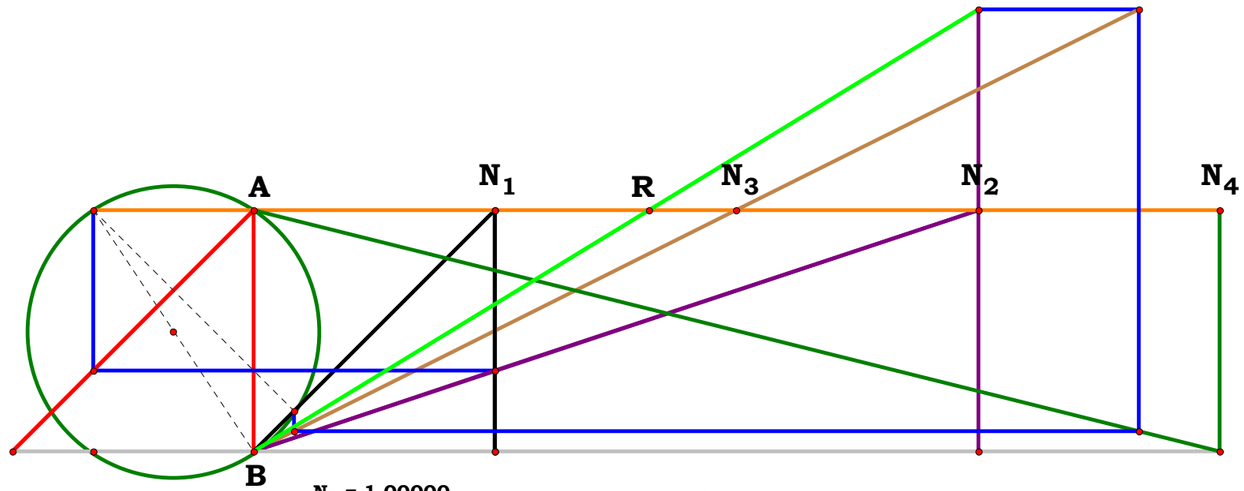
$$R - \frac{N_2^2 \cdot N_3^2 \cdot \left(N_1^2 + 1\right)}{N_2 \cdot N_3 \cdot N_4 \cdot \left(N_1^2 + 1\right) - N_1 \cdot N_4 \cdot \left(N_1^2 - N_1 \cdot N_2 + N_2\right)} = 0$$

$$N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0 \quad N_4 - \frac{N_u}{D} = 0$$

$$R - \frac{A \cdot D \cdot N_u \cdot \left(A^2 + N_u^2\right)}{B \cdot C \cdot \left[A^3 - C \cdot A^2 + N_u \cdot \left[C \cdot (A - B) + A \cdot N_u\right]\right]} = 0$$

$$N_1 - \frac{W}{m} = 0 \quad N_2 - \frac{X}{n} = 0 \quad N_3 - \frac{Y}{o} = 0 \quad N_4 - \frac{Z}{p} = 0$$

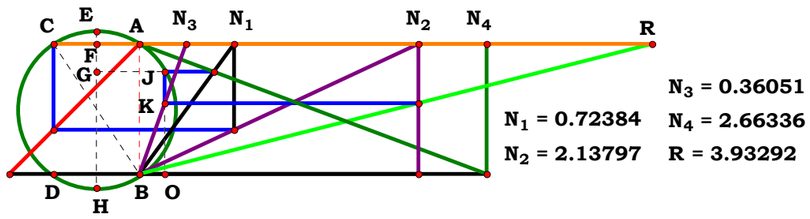
$$R - \frac{X^2 \cdot Y^2 \cdot m \cdot p \cdot \left(W^2 + m^2\right)}{Y \cdot X \cdot Z \cdot m \cdot n \cdot o \cdot \left(W^2 + m^2\right) - W \cdot Z \cdot n \cdot o^2 \cdot \left(n \cdot W^2 - X \cdot W \cdot m + X \cdot m^2\right)} = 0$$



$N_1 = 1.00000$
$N_2 = 3.00000$
$N_3 = 2.00000$
$N_4 = 4.00000$
$R = 1.63636$

$$\frac{N_2^2 \cdot N_3^2 \cdot (N_1^2+1)}{N_2 \cdot N_3 \cdot N_4 \cdot (N_1^2+1) - N_1 \cdot N_4 \cdot ((N_1^2 - N_1 \cdot N_2) + N_2)} - R = 0.00000$$

4RST7AB6R6



$N_3 = 0.36051$
$N_1 = 0.72384$ $N_4 = 2.66336$
$N_2 = 2.13797$ $R = 3.93292$

Unit. $AB := 1$ **Given.** $N_1 := .72384$ $N_2 := 2.13797$ $N_3 := .36051$ $N_4 := 2.66336$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

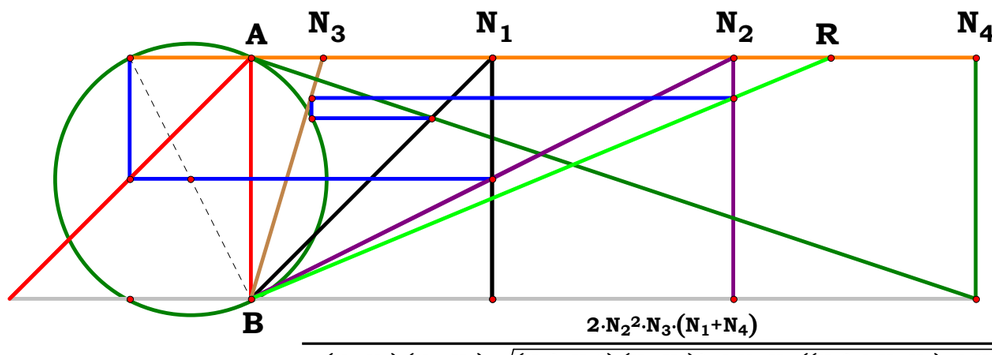
$AC := \frac{N_2 - N_1}{N_2}$ $EH := \sqrt{AB^2 + AC^2}$

$AF := \frac{AC}{2}$ $EF := \frac{EH - AB}{2}$

$JO := \frac{N_4}{N_4 + N_1}$ $GH := JO + EF$

$GJ := \sqrt{GH \cdot (EH - GH)}$ $BO := GJ - AF$

$KO := \frac{BO}{N_3}$ $R := \frac{N_2}{KO}$ $R = 3.93294$



$N_1 = 1.00000$
$N_2 = 2.00000$
$N_3 = 0.30000$
$N_4 = 3.00000$
$R = 2.40000$

$$\frac{2 \cdot N_2^2 \cdot N_3 \cdot (N_1 + N_4)}{(N_1 - N_2) \cdot (N_1 + N_4) + \sqrt{(N_1^2 + N_4^2) \cdot (N_1 - N_2)^2 + 2 \cdot N_1 \cdot N_4 \cdot ((N_1^2 - 2 \cdot N_1 \cdot N_2) + 3 \cdot N_2^2)}} - R = 0.00000$$

Definitions.

$$R - \frac{2 \cdot N_2^2 \cdot N_3 \cdot (N_1 + N_4)}{(N_1 + N_4) \cdot (N_1 - N_2) + \sqrt{(N_1^2 + N_4^2) \cdot (N_1 - N_2)^2 + 2 \cdot N_1 \cdot N_4 \cdot (N_1^2 - 2 \cdot N_1 \cdot N_2 + 3 \cdot N_2^2)}} = 0$$

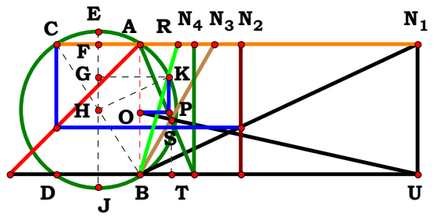
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{2 \cdot A \cdot N_u^2 \cdot (A + D)}{B \cdot C \cdot \left[\sqrt{B^2 \cdot (A + D)^2 + A^2 \cdot (A^2 + 6 \cdot A \cdot D + D^2) - 2 \cdot A \cdot B \cdot (A + D)^2} - (A + D) \cdot (A - B)\right]} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{2 \cdot X^2 \cdot Y \cdot m \cdot (W \cdot p + Z \cdot m)}{n \cdot o \cdot \left[\sqrt{X^2 \cdot m^2 \cdot (W^2 \cdot p^2 + 6 \cdot W \cdot Z \cdot m \cdot p + Z^2 \cdot m^2) - 2 \cdot X \cdot W \cdot m \cdot n \cdot (W \cdot p + Z \cdot m)^2 + W^2 \cdot n^2 \cdot (W \cdot p + Z \cdot m)^2} + (W \cdot p + Z \cdot m) \cdot (W \cdot n - X \cdot m)\right]} = 0$$

4RST8AB1R0



$N_1 = 2.12828$
$N_2 = 0.77227$
$N_3 = 0.57360$
$N_4 = 0.41626$
$R = 0.29164$

Unit. $AB := 1$ Given. $N_1 := 2.12828$ $N_2 := .77227$ $N_3 := .57360$ $N_4 := .41626$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

$AC := \frac{N_1 - N_2}{N_1}$ $EJ := \sqrt{AB^2 + AC^2}$ $EF := \frac{EJ - AB}{2}$

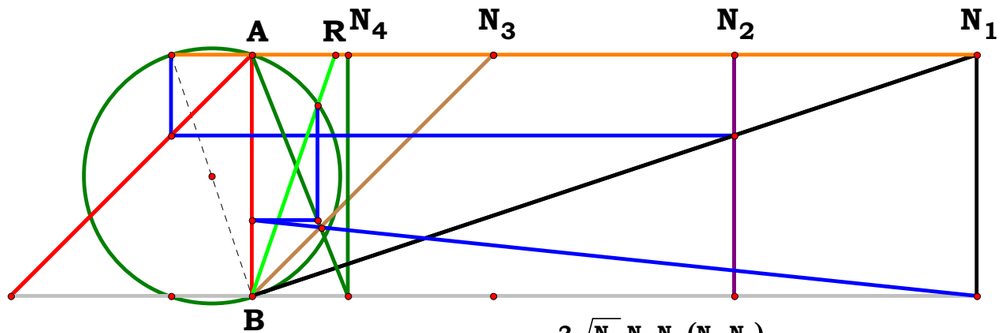
$AF := \frac{AC}{2}$ $HK := \frac{EJ}{2}$ $ST := \frac{N_4}{N_4 + N_3}$ $BT := N_3 \cdot ST$

$TU := N_1 - BT$ $BO := \frac{ST \cdot N_1}{TU}$ $OP := N_4 - N_4 \cdot BO$

$GK := AF + OP$ $GH := \sqrt{HK^2 - GK^2}$

$EG := HK - GH$ $GJ := EJ - EG$

$R := \frac{OP}{GJ - EF}$ $R = 0.291643$



$N_1 = 3.00000$
$N_2 = 2.00000$
$N_3 = 1.00000$
$N_4 = 0.40000$
$R = 0.34661$

$$\frac{2 \cdot \sqrt{N_1} \cdot N_3 \cdot N_4 \cdot (N_1 - N_4)}{\sqrt{N_1} \cdot ((N_1 \cdot N_3 + N_1 \cdot N_4) - N_3 \cdot N_4) + \sqrt{N_1^3 \cdot N_4^2 + N_3^2 \cdot (N_1 - 4 \cdot N_4 \cdot ((N_1 - N_2) + N_1 \cdot N_4)) \cdot (N_1 - N_4)^2 + 2 \cdot N_1 \cdot N_3 \cdot N_4 \cdot (N_1 - N_4) \cdot ((N_1 - 2 \cdot N_1 \cdot N_4) + 2 \cdot N_2 \cdot N_4)}} - R = 0.00000$$

Definitions.

$$R - \frac{2 \cdot \sqrt{N_1} \cdot N_3 \cdot N_4 \cdot (N_1 - N_4)}{\sqrt{N_1} \cdot (N_1 \cdot N_3 + N_1 \cdot N_4 - N_3 \cdot N_4) + \sqrt{N_1^3 \cdot N_4^2 + N_3^2 \cdot [N_1 - 4 \cdot N_4 \cdot (N_1 - N_2 + N_1 \cdot N_4)] \cdot (N_1 - N_4)^2 + 2 \cdot N_1 \cdot N_3 \cdot N_4 \cdot (N_1 - N_4) \cdot (N_1 - 2 \cdot N_1 \cdot N_4 + 2 \cdot N_2 \cdot N_4)}} = 0$$

$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

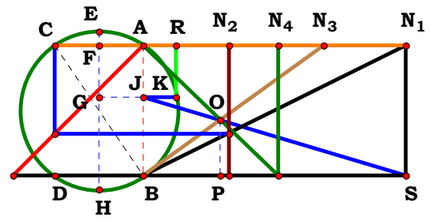
$$R - \frac{2 \cdot \left(\sqrt{N_u}\right)^3 \cdot (A - D) \cdot \sqrt{A \cdot B}}{\sqrt{A \cdot B} \cdot \sqrt{N_u} \cdot D \cdot (A - C - D) - \sqrt{A} \cdot \sqrt{-N_u \cdot \left[4 \cdot B \cdot N_u^2 \cdot (A - D)^2 - B \cdot D^2 \cdot (C - A + D)^2 + 4 \cdot D \cdot N_u \cdot (A - B) \cdot (A - D) \cdot (C - A + D)\right]}} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{2 \cdot \sqrt{W} \cdot Y \cdot Z \cdot (W \cdot p - Z \cdot m) \cdot \sqrt{m \cdot n}}{\sqrt{W^3 \cdot Z^2 \cdot n \cdot o^2 \cdot p^2 - Y^2 \cdot (W \cdot p - Z \cdot m)^2 \cdot \left(4 \cdot W \cdot Z^2 \cdot n - W \cdot n \cdot p^2 + 4 \cdot W \cdot Z \cdot n \cdot p - 4 \cdot X \cdot Z \cdot m \cdot p\right)} \ \ldots \ \cdot \sqrt{m} + \sqrt{m \cdot n} \cdot \sqrt{W} \cdot p \cdot (W \cdot Y \cdot p + W \cdot Z \cdot o - Y \cdot Z \cdot m)} = 0$$

$+ \ -2 \cdot Y \cdot W \cdot Z \cdot o \cdot p \cdot (W \cdot p - Z \cdot m) \cdot (2 \cdot W \cdot Z \cdot n - 2 \cdot X \cdot Z \cdot m - W \cdot n \cdot p)$

4RST8AB1R1



$N_1 = 2.01205$
$N_2 = 0.65604$
$N_3 = 1.38720$
$N_4 = 1.03615$
$R = 0.25654$

Unit. $AB := 1$ Given. $N_1 := 2.01205$ $N_2 := .65604$ $N_3 := 1.38720$ $N_4 := 1.03615$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

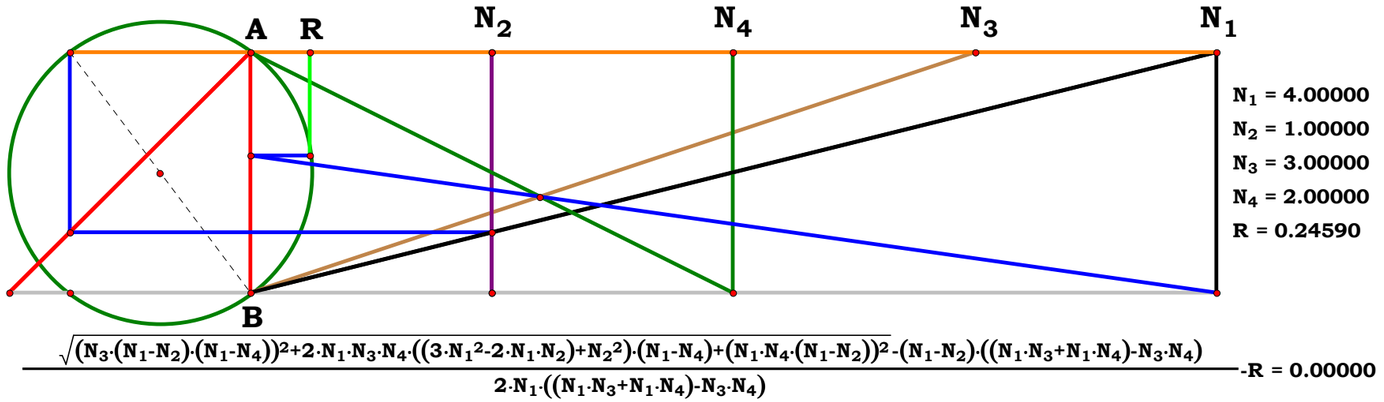
$AC := \frac{N_1 - N_2}{N_1}$ $EH := \sqrt{AB^2 + AC^2}$ $AF := \frac{AC}{2}$

$EF := \frac{EH - AB}{2}$ $OP := \frac{N_4}{N_3 + N_4}$ $BP := N_3 \cdot OP$

$PS := N_1 - BP$ $BJ := \frac{OP \cdot N_1}{PS}$

$GH := BJ + EF$ $GK := \sqrt{GH \cdot (EH - GH)}$

$R := GK - AF$ $R = 0.256535$



$N_1 = 4.00000$
$N_2 = 1.00000$
$N_3 = 3.00000$
$N_4 = 2.00000$
$R = 0.24590$

$$\frac{\sqrt{(N_3\cdot(N_1-N_2)\cdot(N_1-N_4))^2+2\cdot N_1\cdot N_3\cdot N_4\cdot((3\cdot N_1{}^2-2\cdot N_1\cdot N_2)+N_2{}^2)\cdot(N_1-N_4)+(N_1\cdot N_4\cdot(N_1-N_2))^2}-(N_1-N_2)\cdot((N_1\cdot N_3+N_1\cdot N_4)-N_3\cdot N_4)}{2\cdot N_1\cdot((N_1\cdot N_3+N_1\cdot N_4)-N_3\cdot N_4)} - R = 0.00000$$

Definitions.

$$R - \frac{\sqrt{AC^2\cdot\left(N_1\cdot N_3+N_1\cdot N_4-N_3\cdot N_4\right)^2+4\cdot N_1\cdot N_3\cdot N_4\cdot\left(N_1-N_4\right)}-AC\cdot\sqrt{N_3{}^2\cdot\left(N_1-N_4\right)^2+2\cdot N_3\cdot N_1\cdot N_4\cdot\left(N_1-N_4\right)+N_1{}^2\cdot N_4{}^2}}{2\cdot\sqrt{N_3{}^2\cdot\left(N_1-N_4\right)^2+2\cdot N_3\cdot N_1\cdot N_4\cdot\left(N_1-N_4\right)+N_1{}^2\cdot N_4{}^2}} = 0$$

$$R - \frac{\sqrt{N_3{}^2\cdot\left(N_1-N_4\right)^2\cdot\left(N_1-N_2\right)^2+2\cdot N_1\cdot N_3\cdot N_4\cdot\left(3\cdot N_1{}^2-2\cdot N_1\cdot N_2+N_2{}^2\right)\cdot\left(N_1-N_4\right)+N_1{}^2\cdot N_4{}^2\cdot\left(N_1-N_2\right)^2}-\left(N_1-N_2\right)\cdot\left(N_1\cdot N_3+N_1\cdot N_4-N_3\cdot N_4\right)}{2\cdot N_1\cdot\left(N_1\cdot N_3+N_1\cdot N_4-N_3\cdot N_4\right)} = 0$$

$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

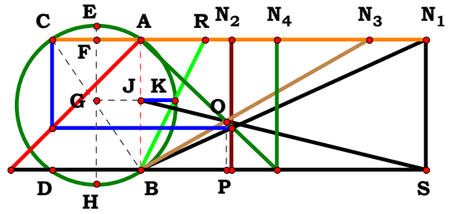
$$R - \frac{(A-C-D)\cdot(A-B)-\sqrt{C^2\cdot(A-B)^2+(A-B)^2\cdot(A-D)^2-2\cdot C\cdot(A-D)\cdot\left(A^2-2\cdot A\cdot B+3\cdot B^2\right)}}{2\cdot B\cdot(A-C-D)} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{\sqrt{Y^2\cdot(W\cdot p-Z\cdot m)^2\cdot(W\cdot n-X\cdot m)^2+2\cdot Y\cdot W\cdot Z\cdot o\cdot\left(3\cdot W^2\cdot n^2-2\cdot W\cdot X\cdot m\cdot n+X^2\cdot m^2\right)\cdot(W\cdot p-Z\cdot m)+W^2\cdot Z^2\cdot o^2\cdot(W\cdot n-X\cdot m)^2}\ \ldots}{+\ -Z\cdot(W\cdot o-Y\cdot m)\cdot(W\cdot n-X\cdot m)-W\cdot Y\cdot p\cdot(W\cdot n-X\cdot m)} = 0$$

$$2\cdot W\cdot n\cdot(W\cdot Y\cdot p+W\cdot Z\cdot o-Y\cdot Z\cdot m)$$

4RST8AB1R2



$N_1 = 2.18639$
$N_2 = 0.69478$
$N_3 = 1.75526$
$N_4 = 1.04584$
$R = 0.49374$

Unit. $AB := 1$ Given. $N_1 := 2.18639$ $N_2 := .69478$ $N_3 := 1.75526$ $N_4 := 1.04584$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

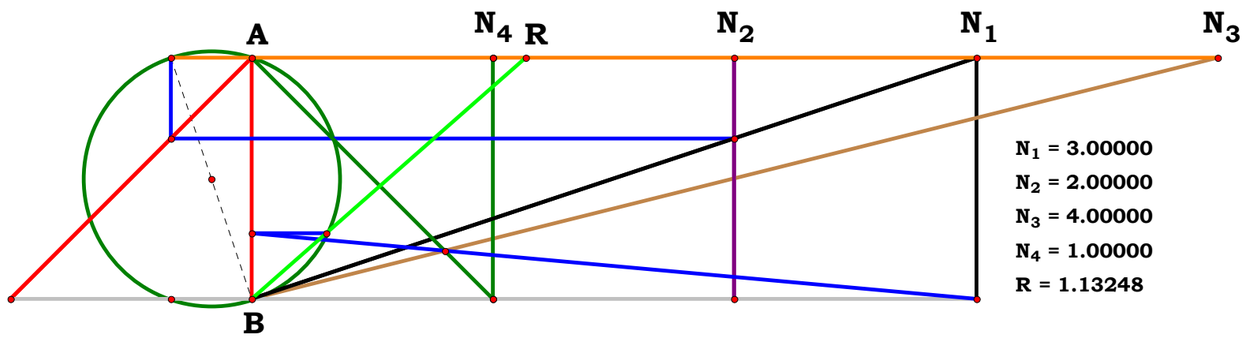
Descriptions.

$AC := \frac{N_1 - N_2}{N_1}$ $EH := \sqrt{AB^2 + AC^2}$ $AF := \frac{AC}{2}$

$EF := \frac{EH - AB}{2}$ $OP := \frac{N_4}{N_3 + N_4}$ $BP := N_3 \cdot OP$

$PS := N_1 - BP$ $BJ := \frac{OP \cdot N_1}{PS}$ $GH := BJ + EF$

$GK := \sqrt{GH \cdot (EH - GH)}$ $R := \frac{GK - AF}{BJ}$ $R = 0.493733$



$N_1 = 3.00000$
$N_2 = 2.00000$
$N_3 = 4.00000$
$N_4 = 1.00000$
$R = 1.13248$

$$\frac{\sqrt{(N_1-N_2)^2\cdot(N_3^2\cdot(N_1-N_4)^2+N_1^2\cdot N_4^2)+2\cdot N_1\cdot N_3\cdot N_4\cdot((3\cdot N_1^2-2\cdot N_1\cdot N_2)+N_2^2)\cdot(N_1-N_4)}-(N_1-N_2)\cdot((N_1\cdot N_3+N_1\cdot N_4)-N_3\cdot N_4)}{2\cdot N_1^2\cdot N_4} - R = 0.00000$$

Definitions.

$$R - \frac{\left[\sqrt{AC^2\cdot\left(N_1\cdot N_3+N_1\cdot N_4-N_3\cdot N_4\right)^2+4\cdot N_1\cdot N_3\cdot N_4\cdot\left(N_1-N_4\right)}-AC\cdot\sqrt{\left(N_1\cdot N_3+N_1\cdot N_4-N_3\cdot N_4\right)^2}\right]\cdot\left(N_1\cdot N_3+N_1\cdot N_4-N_3\cdot N_4\right)}{2\cdot N_1\cdot N_4\cdot\sqrt{\left(N_1\cdot N_3+N_1\cdot N_4-N_3\cdot N_4\right)^2}} = 0$$

$$R - \frac{\sqrt{\left(N_1-N_2\right)^2\cdot\left[N_3^2\cdot\left(N_1-N_4\right)^2+N_1^2\cdot N_4^2\right]+2\cdot N_1\cdot N_3\cdot N_4\cdot\left(3\cdot N_1^2-2\cdot N_1\cdot N_2+N_2^2\right)\cdot\left(N_1-N_4\right)}-\left(N_1-N_2\right)\cdot\left(N_1\cdot N_3+N_1\cdot N_4-N_3\cdot N_4\right)}{2\cdot N_1^2\cdot N_4} = 0$$

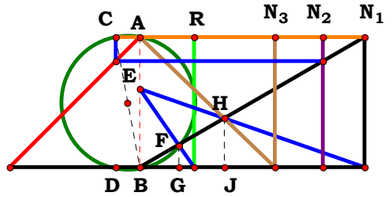
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{(C-A+D)\cdot(A-B)+\sqrt{C^2\cdot(A-B)^2-2\cdot C\cdot\left(A^2-2\cdot A\cdot B+3\cdot B^2\right)\cdot(A-D)+(A-D)^2\cdot(A-B)^2}}{2\cdot B\cdot C} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{\sqrt{Y^2\cdot(W\cdot p-Z\cdot m)^2\cdot(W\cdot n-X\cdot m)^2+W\cdot Z\cdot o\cdot\left[2\cdot Y\cdot\left(3\cdot W^2\cdot n^2-2\cdot W\cdot X\cdot m\cdot n+X^2\cdot m^2\right)\cdot(W\cdot p-Z\cdot m)+W\cdot Z\cdot o\cdot(W\cdot n-X\cdot m)^2\right]}-(W\cdot Y\cdot p+W\cdot Z\cdot o-Y\cdot Z\cdot m)\cdot(W\cdot n-X\cdot m)}{2\cdot W^2\cdot Z\cdot n\cdot o} = 0$$

4RST8AB1R4



$N_1 = 1.72148$
$N_2 = 1.40185$
$N_3 = 1.03851$
$R = 0.41304$

Unit. $AB := 1$ **Given.** $N_1 := 1.72148$ $N_2 := 1.40185$ $N_3 := 1.03851$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

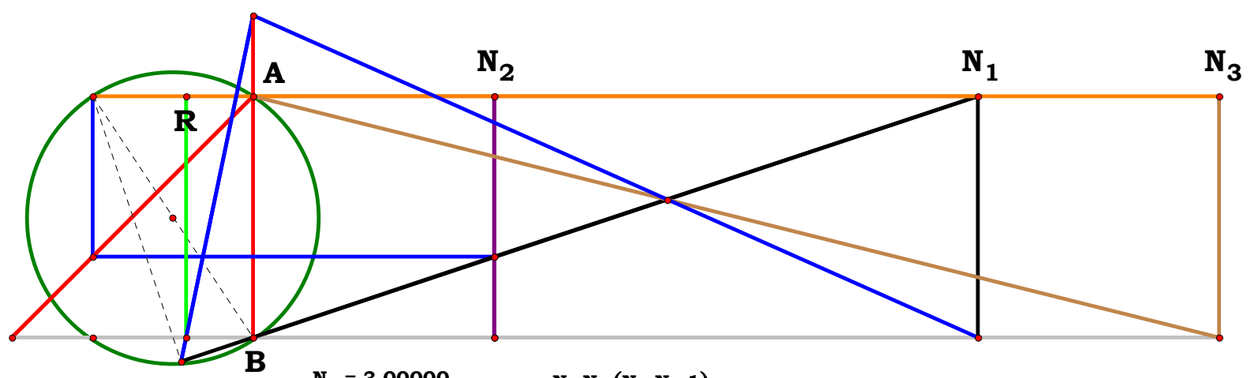
Descriptions.

$$AC := \frac{N_1 - N_2}{N_1} \qquad HJ := \frac{N_3}{N_1 + N_3} \qquad BJ := N_1 \cdot HJ$$

$$BN_1 := \sqrt{AB^2 + N_1{}^2} \qquad FN_1 := \frac{N_1 \cdot (N_1 + AC)}{BN_1}$$

$$BF := BN_1 - FN_1 \qquad BG := \frac{N_1 \cdot BF}{BN_1} \qquad FG := \frac{BG}{N_1}$$

$$BE := \frac{HJ \cdot N_1}{N_1 - BJ} \qquad R := \frac{BE \cdot BG}{BE - FG} \qquad R = 0.413038$$



$N_1 = 3.00000$
$N_2 = 1.00000$
$N_3 = 4.00000$
$R = -0.27907$

$$\frac{N_1 \cdot N_3 \cdot (N_1 - N_2 - 1)}{(N_1 - N_3 - N_1{}^2 \cdot N_3 - N_1{}^2) + N_1 \cdot N_2} - R = 0.00000$$

Definitions.

$$R - \frac{N_1 \cdot N_3 \cdot (AC \cdot N_1 - 1)}{N_1 - N_3 - N_1{}^2 \cdot N_3 - AC \cdot N_1{}^2} = 0$$

$$R - \frac{N_1 \cdot N_3 \cdot (N_1 - N_2 - 1)}{N_1 - N_3 - N_1{}^2 \cdot N_3 - N_1{}^2 + N_1 \cdot N_2} = 0$$

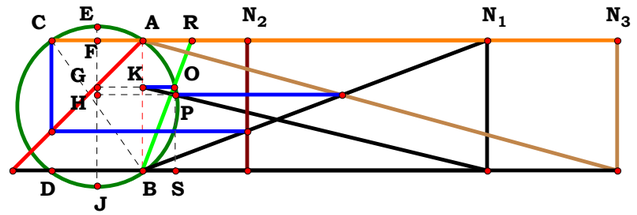
$$N_1 - \frac{N_u}{A} = 0 \qquad N_2 - \frac{N_u}{B} = 0 \qquad N_3 - \frac{N_u}{C} = 0$$

$$R - \frac{N_u \cdot [A \cdot B + N_u \cdot (A - B)]}{A \cdot B \cdot (A - C) - N_u \cdot [C \cdot (A - B) - B \cdot N_u]} = 0$$

$$N_1 - \frac{X}{o} = 0 \qquad N_2 - \frac{Y}{p} = 0 \qquad N_3 - \frac{Z}{q} = 0$$

$$R - \frac{X \cdot Z \cdot (Y \cdot o - X \cdot p + o \cdot p)}{X^2 \cdot p \cdot (Z + q) - X \cdot o \cdot q \cdot (Y + p) + Z \cdot o^2 \cdot p} = 0$$

4RST8AB1R5



$N_1 = 2.64163$
$N_2 = 0.80133$
$N_3 = 3.64399$
$R = 0.38058$

Unit. $AB := 1$ **Given.** $N_1 := 2.64163$ $N_2 := .80133$ $N_3 := 3.64399$

Descriptions.

$$AC := \frac{N_1 - N_2}{N_1} \qquad EJ := \sqrt{AB^2 + AC^2}$$

$$AF := \frac{AC}{2} \qquad EF := \frac{EJ - AB}{2}$$

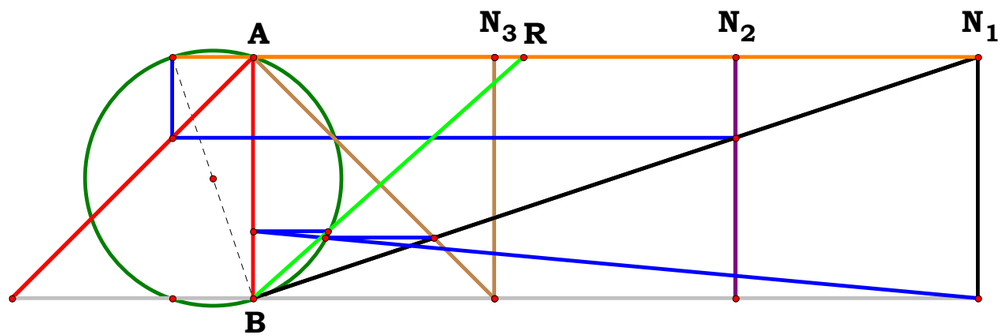
$$PS := \frac{N_3}{N_1 + N_3} \qquad HJ := PS + EF$$

$$HP := \sqrt{HJ \cdot (EJ - HJ)} \qquad BS := HP - AF$$

$$BK := \frac{PS \cdot N_1}{N_1 - BS} \qquad GJ := BK + EF$$

$$GO := \sqrt{GJ \cdot (EJ - GJ)} \qquad KO := GO - AF$$

$$R := \frac{KO}{BK} \qquad R = 0.380582$$



$N_1 = 3.00000$ $AB = 1.00000$ $EF = 0.02705$ $BS = 0.29731$ $KO = 0.31111$
$N_2 = 2.00000$ $AC = 0.33333$ $PS = 0.25000$ $BK = 0.27750$ $R - \frac{KO}{BK} = 0.00000$
$N_3 = 1.00000$ $EJ = 1.05409$ $HJ = 0.27705$ $GJ = 0.30455$
$R = 1.12112$ $AF = 0.16667$ $HP = 0.46398$ $GO = 0.47778$

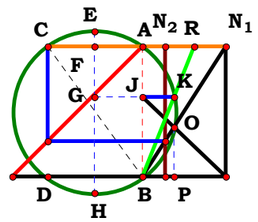
Definitions.

$$A := \sqrt{AC^2 \cdot (N_1 + N_3)^2 + 4 \cdot N_1 \cdot N_3} \qquad B := \sqrt{(N_1 + N_3)^2} \qquad C := \sqrt{(N_1 + N_3)^2 \cdot [A - B \cdot (AC + 2 \cdot N_1)]^2}$$

$$D := \sqrt{AC^2 \cdot (N_1 + N_3)^2 \cdot (A - AC \cdot B - 2 \cdot B \cdot N_1)^2 - 8 \cdot B \cdot N_1 \cdot N_3 \cdot [(N_1 + N_3) \cdot (A - AC \cdot B) - 2 \cdot B \cdot N_1^2]}$$

$$R - \frac{(AC \cdot C - D) \cdot (N_1 + N_3) \cdot (A - AC \cdot B - 2 \cdot B \cdot N_1)}{4 \cdot B \cdot C \cdot N_1 \cdot N_3} = 0$$

4RST8AB1R6



$N_1 = 0.63667$
$N_2 = 0.17175$
$R = 0.39564$

Unit. $AB := 1$ Given. $N_1 := .63667$ $N_2 := .17175$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $Y := 20$ $Z := 19$ $p := \frac{Y}{N_1}$ $q := \frac{Z}{N_2}$

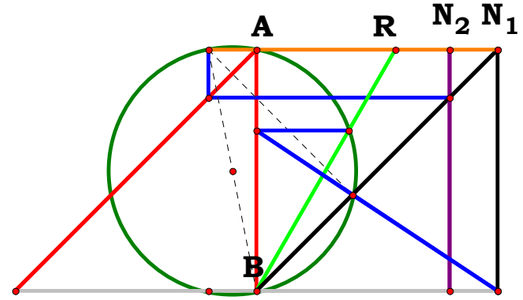
Descriptions.

$AC := \frac{N_1 - N_2}{N_1}$ $EH := \sqrt{AB^2 + AC^2}$ $AF := \frac{AC}{2}$ $EF := \frac{EH - AB}{2}$

$BN_1 := \sqrt{AB^2 + N_1^2}$ $ON_1 := \frac{N_1 \cdot (N_1 + AC)}{BN_1}$ $BO := BN_1 - ON_1$

$BP := \frac{N_1 \cdot BO}{BN_1}$ $OP := \frac{BP}{N_1}$ $BJ := \frac{OP \cdot N_1}{N_1 - BP}$ $GH := BJ + EF$

$GK := \sqrt{GH \cdot (EH - GH)}$ $JK := GK - AF$ $R := \frac{JK}{BJ}$ $R = 0.395642$



$N_1 = 1.00000$
$N_2 = 0.80000$
$R = 0.57284$

$$\frac{((N_1^2+N_1)-N_2)\cdot(N_1-N_2)-\sqrt{(((N_1^6-N_1^4\cdot(N_2+1)\cdot((2\cdot N_1-N_2)+3))+6\cdot N_1^3\cdot(N_2^2+2\cdot N_2+2))-2\cdot N_1^2\cdot(N_2^3+N_2^2+6\cdot N_2+2))+N_2^3\cdot(N_2-4\cdot N_1)}}{2\cdot N_1\cdot(N_1-N_2-1)} - R = 0.00000$$

Definitions.

$$R - \frac{N_1 \cdot (AC + N_1) \cdot \left[AC \cdot \sqrt{N_1^2 \cdot (AC + N_1)^2} - \sqrt{N_1^2 \cdot AC^4 + AC^2 \cdot N_1^2 \cdot (N_1^2 + 2 \cdot AC \cdot N_1 - 8) - 4 \cdot AC \cdot N_1 \cdot (N_1^2 - 3) + 4 \cdot N_1^2 - 4}\right]}{2 \cdot (AC \cdot N_1 - 1) \cdot \sqrt{N_1^2 \cdot (AC + N_1)^2}} = 0$$

$$R - \frac{(N_1^2 + N_1 - N_2) \cdot (N_1 - N_2) - \sqrt{N_1^6 - N_1^4 \cdot (N_2 + 1) \cdot (2 \cdot N_1 - N_2 + 3) + 6 \cdot N_1^3 \cdot (N_2^2 + 2 \cdot N_2 + 2) - 2 \cdot N_1^2 \cdot (N_2^3 + N_2^2 + 6 \cdot N_2 + 2) + N_2^3 \cdot (N_2 - 4 \cdot N_1)}}{2 \cdot N_1 \cdot (N_1 - N_2 - 1)} = 0$$

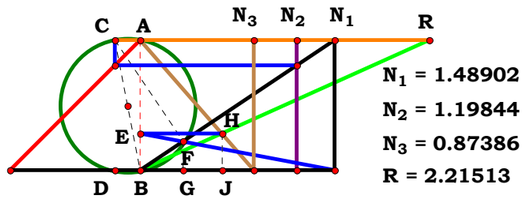
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$

$$R - \frac{\sqrt{B^2 \cdot N_u^4 \cdot (A - B)^2 + \left[2 \cdot A \cdot B \cdot N_u^3 \cdot (2 \cdot A \cdot B - A^2 + B^2) - 12 \cdot A^3 \cdot B^3 \cdot N_u\right] \cdot (A - B) + A^2 \cdot N_u^2 \cdot (A^2 - 3 \cdot B^2) \cdot (A^2 - 4 \cdot A \cdot B + B^2) - 4 \cdot A^4 \cdot B^4} - N_u \cdot (A - B) \cdot (A^2 - B \cdot A - B \cdot N_u)}{2 \cdot A \cdot B \cdot (A \cdot B + A \cdot N_u - B \cdot N_u)} = 0$$

$N_1 - \frac{Y}{p} = 0$ $N_2 - \frac{Z}{q} = 0$

$$R - \frac{(q \cdot Y^2 + q \cdot Y \cdot p - Z \cdot p^2) \cdot (Y \cdot q - Z \cdot p) - \sqrt{\begin{matrix} q^4 \cdot Y^6 - 2 \cdot Y^5 \cdot p \cdot q^3 \cdot (Z + q) + Y^4 \cdot p^2 \cdot q^2 \cdot (Z + q) \cdot (Z - 3 \cdot q) + 6 \cdot Y^3 \cdot p^3 \cdot q^2 \cdot (Z^2 + 2 \cdot Z \cdot q + 2 \cdot q^2) \ldots \\ + -2 \cdot Y^2 \cdot p^4 \cdot q \cdot (Z^3 + Z^2 \cdot q + 6 \cdot Z \cdot q^2 + 2 \cdot q^3) + Z^3 \cdot p^5 \cdot (Z \cdot p - 4 \cdot Y \cdot q) \end{matrix}}}{2 \cdot Y \cdot p \cdot q \cdot (Y \cdot q - Z \cdot p - p \cdot q)} = 0$$

4RST8AB1R7



Unit. $AB := 1$ Given. $N_1 := 1.48902$ $N_2 := 1.19844$ $N_3 := .87386$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

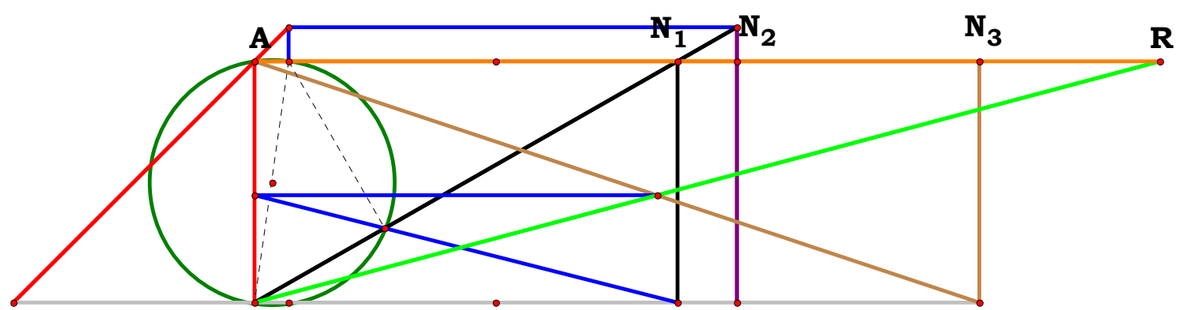
Descriptions.

$AC := \frac{N_1 - N_2}{N_1}$ $BN_1 := \sqrt{AB^2 + N_1^2}$ $FN_1 := \frac{N_1 \cdot (N_1 + AC)}{BN_1}$

$BF := BN_1 - FN_1$ $BG := \frac{N_1 \cdot BF}{BN_1}$ $FG := \frac{BG}{N_1}$

$BE := \frac{FG \cdot N_1}{N_1 - BG}$ $BJ := N_3 \cdot (AB - BE)$

$R := \frac{BJ}{BE}$ $R = 2.215187$



Definitions.

$$R - \frac{N_3 \cdot (N_1^2 + 2 \cdot AC \cdot N_1 - 1)}{1 - AC \cdot N_1} = 0$$

$$R - \frac{N_3 \cdot (N_1^2 + 2 \cdot N_1 - 2 \cdot N_2 - 1)}{N_2 - N_1 + 1} = 0$$

$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$

$$R - \frac{B \cdot N_u^3 - A \cdot N_u \cdot [A \cdot B + 2 \cdot N_u \cdot (A - B)]}{A \cdot C \cdot [A \cdot B + N_u \cdot (A - B)]} = 0$$

$N_1 - \frac{X}{o} = 0$ $N_2 - \frac{Y}{p} = 0$ $N_3 - \frac{Z}{q} = 0$

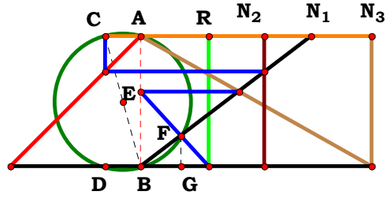
$$R - \frac{X \cdot Z \cdot p \cdot (X + 2 \cdot o) - Z \cdot o^2 \cdot (2 \cdot Y + p)}{o \cdot q \cdot (Y \cdot o - X \cdot p + o \cdot p)} = 0$$

B

$N_1 = 1.75000$
$N_2 = 2.00000$
$N_3 = 3.00000$
$R = 3.75000$

$\frac{N_3 \cdot ((N_1^2 + 2 \cdot (N_1 - N_2)) - 1)}{(N_2 - N_1) + 1} - R = 0.00000$

4RST8AB1R8



$N_1 = 1.30499$
$N_2 = 0.94661$
$N_3 = 1.77463$
$R = 0.52676$

Unit. $AB := 1$ Given. $N_1 := 1.30499$ $N_2 := .94661$ $N_3 := 1.77463$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

$$AC := \frac{N_1 - N_2}{N_1} \qquad BE := \frac{N_3}{N_1 + N_3}$$

$$BN_1 := \sqrt{AB^2 + N_1^2} \qquad FN_1 := \frac{N_1 \cdot (N_1 + AC)}{BN_1}$$

$$BF := BN_1 - FN_1 \qquad BG := \frac{N_1 \cdot BF}{BN_1}$$

$$FG := \frac{BG}{N_1} \qquad R := \frac{BG \cdot BE}{BE - FG} \qquad R = 0.526755$$

Definitions.

$$R - \frac{N_3 - AC \cdot N_1 \cdot N_3}{AC \cdot N_1 + AC \cdot N_3 + N_1 \cdot N_3 - 1} = 0$$

$$R - \frac{N_1 \cdot N_3 \cdot (N_1 - N_2 - 1)}{N_1 - N_3 \cdot (N_1^2 + N_1 - N_2) - N_1 \cdot (N_1 - N_2)} = 0$$

$$N_1 - \frac{N_u}{A} = 0 \qquad N_2 - \frac{N_u}{B} = 0 \qquad N_3 - \frac{N_u}{C} = 0$$

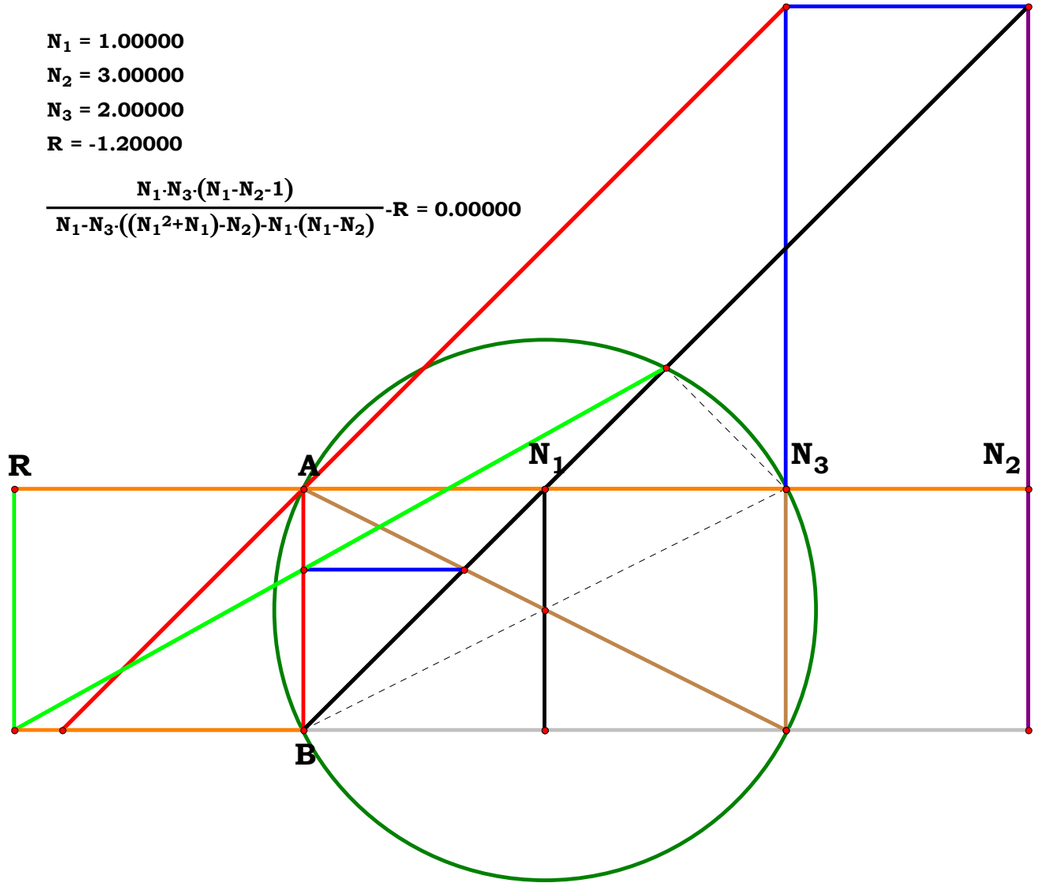
$$R - \frac{N_u \cdot (A \cdot B + A \cdot N_u - B \cdot N_u)}{B \cdot N_u^2 + (A \cdot B - A^2 - A \cdot C + B \cdot C) \cdot N_u - A \cdot B \cdot C} = 0$$

$$N_1 - \frac{X}{o} = 0 \qquad N_2 - \frac{Y}{p} = 0 \qquad N_3 - \frac{Z}{q} = 0$$

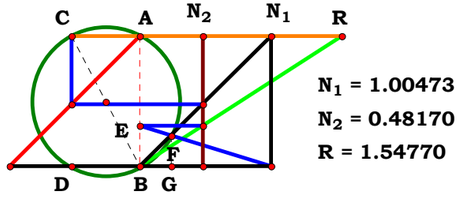
$$R - \frac{X \cdot Z \cdot (X \cdot p - Y \cdot o - o \cdot p)}{X \cdot o \cdot (Y \cdot q - Z \cdot p + p \cdot q) + Y \cdot Z \cdot o^2 - X^2 \cdot p \cdot (Z + q)} = 0$$

$N_1 = 1.00000$
$N_2 = 3.00000$
$N_3 = 2.00000$
$R = -1.20000$

$$\frac{N_1 \cdot N_3 \cdot (N_1 - N_2 - 1)}{N_1 - N_3 \cdot ((N_1^2 + N_1) - N_2) - N_1 \cdot (N_1 - N_2)} - R = 0.00000$$



4RST8AB1R9



$N_1 = 1.00473$
$N_2 = 0.48170$
$R = 1.54770$

Unit. $AB := 1$ Given. $N_1 := 1.21782$ $N_2 := .86913$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $Y := 20$ $Z := 19$ $p := \frac{Y}{N_1}$ $q := \frac{Z}{N_2}$

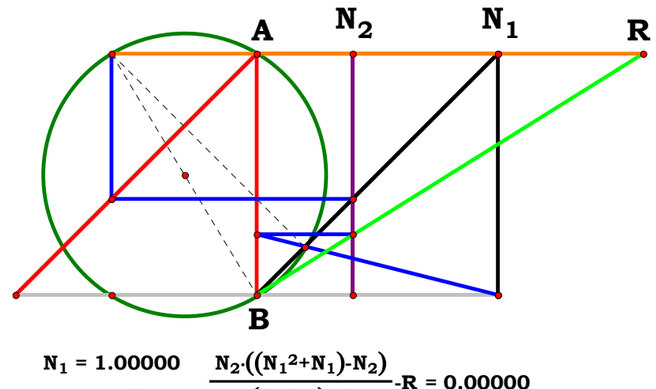
Descriptions.

$$AC := \frac{N_1 - N_2}{N_1} \qquad BN_1 := \sqrt{AB^2 + N_1{}^2}$$

$$FN_1 := \frac{N_1 \cdot (N_1 + AC)}{BN_1} \qquad BF := BN_1 - FN_1$$

$$BG := \frac{N_1 \cdot BF}{BN_1} \qquad FG := \frac{BG}{N_1}$$

$$BE := \frac{FG \cdot N_1}{N_1 - BG} \qquad R := \frac{N_2}{BE} \qquad R = 2.444383$$



$N_1 = 1.00000$
$N_2 = 0.40000$
$R = 1.60000$

$$\frac{N_2 \cdot ((N_1{}^2 + N_1) - N_2)}{(N_2 - N_1) + 1} - R = 0.00000$$

Definitions.

$$R - \frac{N_1 \cdot N_2 \cdot (AC + N_1)}{1 - AC \cdot N_1} = 0$$

$$R - \frac{N_2 \cdot (N_1{}^2 + N_1 - N_2)}{N_2 - N_1 + 1} = 0$$

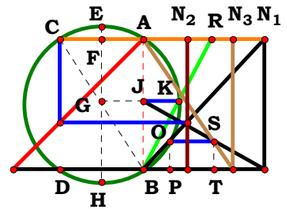
$$N_1 - \frac{N_u}{A} = 0 \qquad N_2 - \frac{N_u}{B} = 0$$

$$R - \frac{N_u{}^2 \cdot (B \cdot A - A^2 + B \cdot N_u)}{A \cdot B \cdot [A \cdot B + N_u \cdot (A - B)]} = 0$$

$$N_1 - \frac{Y}{p} = 0 \qquad N_2 - \frac{Z}{q} = 0$$

$$R - \frac{Z \cdot (q \cdot Y^2 + q \cdot Y \cdot p - Z \cdot p^2)}{p \cdot q \cdot (Z \cdot p - Y \cdot q + p \cdot q)} = 0$$

4RST8AB1R10



$N_1 = 0.92724$
$N_2 = 0.33641$
$N_3 = 0.68983$
$R = 0.52232$

Unit. $AB := 1$ Given. $N_1 := .92724$ $N_2 := .33641$ $N_3 := .68983$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

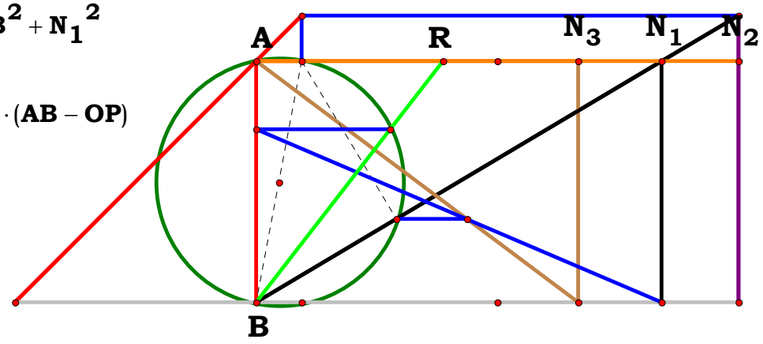
Descriptions.

$AC := \frac{N_1 - N_2}{N_1}$ $EH := \sqrt{AB^2 + AC^2}$ $AF := \frac{AC}{2}$ $EF := \frac{EH - AB}{2}$ $BN_1 := \sqrt{AB^2 + N_1^2}$

$ON_1 := \frac{N_1 \cdot (N_1 + AC)}{BN_1}$ $BO := BN_1 - ON_1$ $BP := \frac{N_1 \cdot BO}{BN_1}$ $OP := \frac{BP}{N_1}$ $BT := N_3 \cdot (AB - OP)$

$BJ := \frac{OP \cdot N_1}{N_1 - BT}$ $GH := BJ + EF$ $GK := \sqrt{GH \cdot (EH - GH)}$

$R := \frac{GK - AF}{BJ}$ $R = 0.52231$



$N_1 = 1.67976$
$N_2 = 2.00000$
$N_3 = 1.33325$
$R = 0.77165$

$$\frac{(N_1-N_2)\cdot((((N_1-N_1^2\cdot N_3)+N_1^3)-N_1\cdot N_3)+N_2\cdot N_3)-\sqrt{((N_3^2\cdot((N_1^2+N_1)-N_2)^2\cdot(N_1-N_2)^2)+(N_1^2\cdot((N_2-N_1-N_1^2\cdot N_2-2\cdot N_1^2)+N_1^3)^2))-(2\cdot N_1\cdot N_3\cdot((N_1^2+N_1)-N_2)\cdot(((N_1^4-2\cdot N_1^3\cdot(N_2+1))+N_1^2\cdot(N_2^2+2\cdot N_2+3))-N_2\cdot(2\cdot N_1-N_2)))}{2\cdot N_1^2\cdot(N_1-N_2-1)} - R = 0.00000$$

Definitions.

$$R - \frac{\left[\begin{array}{l} 2\cdot\sqrt{N_3^2\cdot AC^4+-2\cdot AC^3\cdot N_3\cdot\left(N_1^2-N_3\cdot N_1+1\right)+AC^2\cdot\left(N_1^2-N_3\cdot N_1-1\right)^2-4\cdot\left(N_1-N_3\right)\cdot\left(AC\cdot N_1^2-N_1-AC\right)}\ \ldots \\ +\ -AC\cdot\sqrt{4\cdot\left(N_1^2-N_1\cdot N_3-AC\cdot N_3+1\right)^2} \end{array}\right]\cdot\left(N_1\cdot N_3-N_1^2+AC\cdot N_3-1\right)}{2\cdot\sqrt{4\cdot\left(N_1^2-N_1\cdot N_3-AC\cdot N_3+1\right)^2}\cdot\left(AC\cdot N_1-1\right)} = 0$$

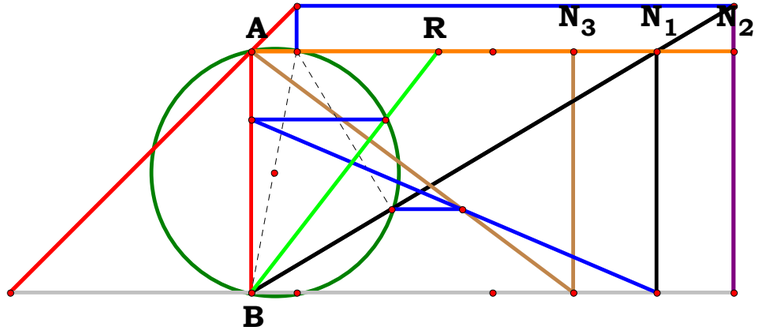
$$R - \frac{\left(N_1-N_2\right)\cdot\left(N_1-N_1^2\cdot N_3+N_1^3-N_1\cdot N_3+N_2\cdot N_3\right)-\sqrt{\begin{array}{l} N_3^2\cdot\left(N_1^2+N_1-N_2\right)^2\cdot\left(N_1-N_2\right)^2+N_1^2\cdot\left(N_2-N_1-N_1^2\cdot N_2-2\cdot N_1^2+N_1^3\right)^2\ \ldots \\ +\ -2\cdot N_1\cdot N_3\cdot\left(N_1^2+N_1-N_2\right)\cdot\left[N_1^4-2\cdot N_1^3\cdot\left(N_2+1\right)+N_1^2\cdot\left(N_2^2+2\cdot N_2+3\right)-N_2\cdot\left(2\cdot N_1-N_2\right)\right] \end{array}}}{2\cdot N_1^2\cdot\left(N_1-N_2-1\right)} = 0$$

$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$

$$R - \frac{\sqrt{\begin{array}{l} B^2\cdot C^2\cdot\left[N_u^2\cdot(A-B)-A^3+A^2\cdot B+2\cdot A\cdot B\cdot N_u\right]^2+A^2\cdot N_u^2\cdot(A-B)^2\cdot\left(B\cdot A-A^2+B\cdot N_u\right)^2\ \ldots \\ +\ -2\cdot A\cdot B\cdot C\cdot N_u\cdot\left(B\cdot A-A^2+B\cdot N_u\right)\cdot\left[N_u^2\cdot(A-B)^2+A^2\cdot\left(A^2-2\cdot A\cdot B+3\cdot B^2\right)+2\cdot A\cdot B\cdot N_u\cdot(A-B)\right] \end{array}} + (A-B)\cdot\left[(B\cdot C-A\cdot B)\cdot N_u^2+\left(A^3-A^2\cdot B\right)\cdot N_u+A^2\cdot B\cdot C\right]}{2\cdot A\cdot B\cdot C\cdot\left(A\cdot B+A\cdot N_u-B\cdot N_u\right)} = 0$$

$$N_1 - \frac{X}{o} = 0 \quad N_2 - \frac{Y}{p} = 0 \quad N_3 - \frac{Z}{q} = 0$$

$$R - \frac{(X\cdot p - Y\cdot o)\cdot\left[X\cdot p\cdot q\cdot\left(X^2+o^2\right) - Z\cdot o\cdot\left(p\cdot X^2 + p\cdot X\cdot o - Y\cdot o^2\right)\right] - \sqrt{\begin{matrix} Z^2\cdot o^2\cdot\left(p\cdot X^2 + p\cdot X\cdot o - Y\cdot o^2\right)^2\cdot(X\cdot p - Y\cdot o)^2 \ \ldots \\ +\ -2\cdot Z\cdot X\cdot o\cdot p\cdot q\cdot\left(p\cdot X^2 + p\cdot X\cdot o - Y\cdot o^2\right)\cdot\left(\begin{matrix} X^4\cdot p^2 - 2\cdot X^3\cdot Y\cdot o\cdot p - 2\cdot X^3\cdot o\cdot p^2 + X^2\cdot Y^2\cdot o^2 \ \ldots \\ +\ 2\cdot X^2\cdot Y\cdot o^2\cdot p + 3\cdot X^2\cdot o^2\cdot p^2 - 2\cdot X\cdot Y\cdot o^3\cdot p + Y^2\cdot o^4 \end{matrix}\right) \ \ldots \\ +\ X^2\cdot p^2\cdot q^2\cdot\left(Y\cdot o^3 + X^3\cdot p - X^2\cdot Y\cdot o - X\cdot o^2\cdot p - 2\cdot X^2\cdot o\cdot p\right)^2 \end{matrix}}}{2\cdot X^2\cdot o\cdot p\cdot q\cdot(X\cdot p - Y\cdot o - o\cdot p)} = 0$$



$N_1 = 1.67976$

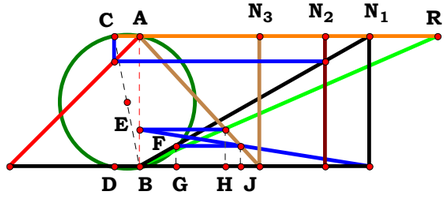
$N_2 = 2.00000$

$N_3 = 1.33325$

$R = 0.77165$

$$\frac{(N_1-N_2)\cdot((((N_1-N_1^2\cdot N_3)+N_1^3)-N_1\cdot N_3)+N_2\cdot N_3)-\sqrt{((N_3^2\cdot((N_1^2+N_1)-N_2)^2\cdot(N_1-N_2)^2)+(N_1^2\cdot((N_2-N_1-N_1^2\cdot N_2-2\cdot N_1^2)+N_1^3)^2))-(2\cdot N_1\cdot N_3\cdot((N_1^2+N_1)-N_2)\cdot(((N_1^4-2\cdot N_1^3\cdot(N_2+1))+N_1^2\cdot(N_2^2+2\cdot N_2+3))-N_2\cdot(2\cdot N_1-N_2)))}}{2\cdot N_1^2\cdot(N_1-N_2-1)} - R = 0.00000$$

4RST8AB1R11



$N_1 = 1.76022$

$N_2 = 1.42122$

$N_3 = 0.92228$

$R = 2.28316$

Unit. $AB := 1$ Given. $N_1 := 1.76022$ $N_2 := 1.42122$ $N_3 := .92228$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

$$AC := \frac{N_1 - N_2}{N_1} \qquad BN_1 := \sqrt{AB^2 + {N_1}^2}$$

$$FN_1 := \frac{N_1 \cdot (N_1 + AC)}{BN_1} \qquad BF := BN_1 - FN_1$$

$$BG := \frac{N_1 \cdot BF}{BN_1} \qquad FG := \frac{BG}{N_1}$$

$$BJ := N_3 \cdot (AB - FG) \qquad BE := \frac{FG \cdot N_1}{N_1 - BJ}$$

$$BH := N_3 \cdot (AB - BE) \qquad R := \frac{BH}{BE} \qquad R = 2.283148$$

Definitions.

$$R - \frac{N_3 \cdot (AC + N_1) \cdot (N_1 - N_3)}{1 - AC \cdot N_1} = 0$$

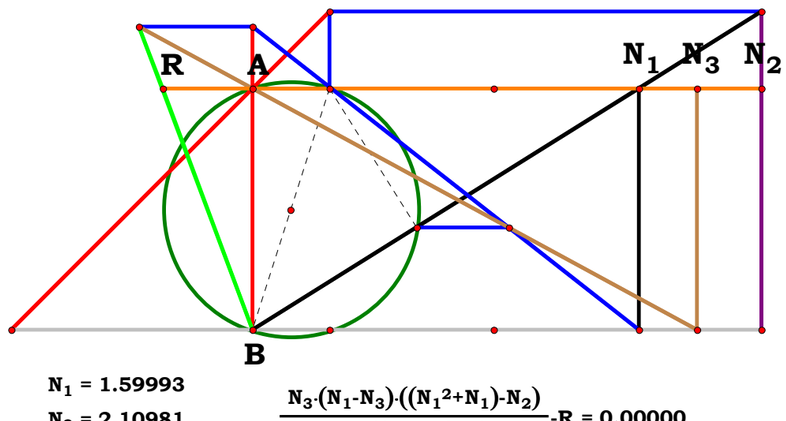
$$R - \frac{N_3 \cdot (N_1 - N_3) \cdot ({N_1}^2 + N_1 - N_2)}{N_1 \cdot (N_2 - N_1 + 1)} = 0$$

$$N_1 - \frac{N_u}{A} = 0 \qquad N_2 - \frac{N_u}{B} = 0 \qquad N_3 - \frac{N_u}{C} = 0$$

$$R - \frac{{N_u}^2 \cdot (A - C) \cdot (A^2 - B \cdot A - B \cdot N_u)}{A \cdot C^2 \cdot [A \cdot B + N_u \cdot (A - B)]} = 0$$

$$N_1 - \frac{X}{o} = 0 \qquad N_2 - \frac{Y}{p} = 0 \qquad N_3 - \frac{Z}{q} = 0$$

$$R - \frac{Z \cdot (X \cdot q - Z \cdot o) \cdot (p \cdot X^2 + p \cdot X \cdot o - Y \cdot o^2)}{X \cdot o \cdot q^2 \cdot (Y \cdot o - X \cdot p + o \cdot p)} = 0$$



$N_1 = 1.59993$

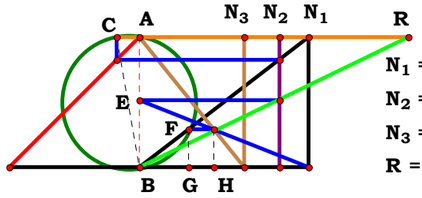
$N_2 = 2.10981$

$N_3 = 1.83918$

$R = -0.37340$

$$\frac{N_3 \cdot (N_1 - N_3) \cdot (({N_1}^2 + N_1) - N_2)}{N_1 \cdot ((N_2 - N_1) + 1)} - R = 0.00000$$

4RST8AB1R12



$N_1 = 1.29530$
$N_2 = 1.07253$
$N_3 = 0.80606$
$R = 2.06314$

Unit. $AB := 1$ **Given.** $N_1 := 1.29530$ $N_2 := 1.07253$ $N_3 := .80606$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

$$AC := \frac{N_1 - N_2}{N_1} \qquad BN_1 := \sqrt{AB^2 + {N_1}^2} \qquad FN_1 := \frac{N_1 \cdot (N_1 + AC)}{BN_1}$$

$$BF := BN_1 - FN_1 \qquad BG := \frac{N_1 \cdot BF}{BN_1} \qquad FG := \frac{BG}{N_1}$$

$$BH := N_3 \cdot (AB - FG) \qquad BE := \frac{FG \cdot N_1}{N_1 - BH}$$

$$R := \frac{N_2}{BE} \qquad R = 2.063124$$

Definitions.

$$R - \frac{N_2 \cdot \left(N_1 \cdot N_3 - {N_1}^2 + AC \cdot N_3 - 1\right)}{AC \cdot N_1 - 1} = 0$$

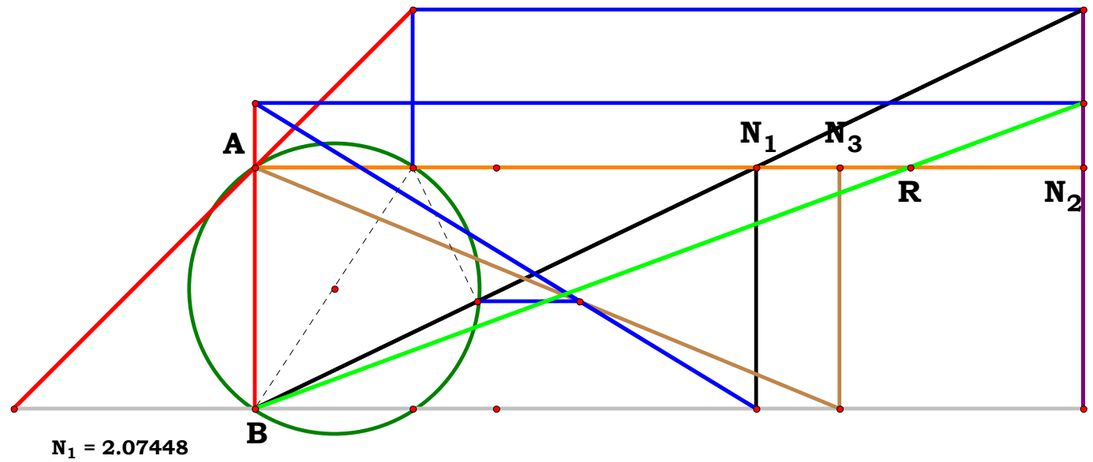
$$R - \frac{N_2 \cdot \left(N_1 - {N_1}^2 \cdot N_3 + {N_1}^3 - N_1 \cdot N_3 + N_2 \cdot N_3\right)}{N_1 \cdot \left(N_2 - N_1 + 1\right)} = 0$$

$$N_1 - \frac{N_u}{A} = 0 \qquad N_2 - \frac{N_u}{B} = 0 \qquad N_3 - \frac{N_u}{C} = 0$$

$$R - \frac{{N_u}^2 \cdot A^2 \cdot (A - B) - {N_u}^3 \cdot B \cdot (A - C) + A^2 \cdot B \cdot C \cdot N_u}{A \cdot B \cdot C \cdot \left[A \cdot B + N_u \cdot (A - B)\right]} = 0$$

$$N_1 - \frac{X}{o} = 0 \qquad N_2 - \frac{Y}{p} = 0 \qquad N_3 - \frac{Z}{q} = 0$$

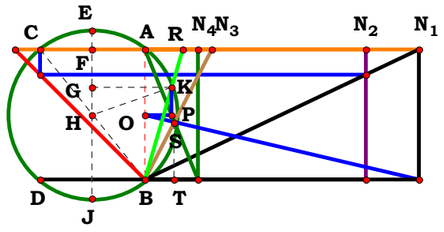
$$R - \frac{Y \cdot \left[X \cdot p \cdot q \cdot \left(X^2 + o^2\right) - Z \cdot o \cdot \left(p \cdot X^2 + p \cdot X \cdot o - Y \cdot o^2\right)\right]}{X \cdot o \cdot p \cdot q \cdot (Y \cdot o - X \cdot p + o \cdot p)} = 0$$



$N_1 = 2.07448$
$N_2 = 3.43272$
$N_3 = 2.42227$
$R = 2.71399$

$$\frac{N_2 \cdot ((((N_1 - {N_1}^2 \cdot N_3) + {N_1}^3) - N_1 \cdot N_3) + N_2 \cdot N_3)}{N_1 \cdot ((N_2 - N_1) + 1)} - R = 0.00000$$

4RST8AB2R0



$N_1 = 2.09922$
$N_2 = 1.69242$
$N_3 = 0.51548$
$N_4 = 0.40657$
$R = 0.29150$

Unit. $AB := 1$ Given. $N_1 := 2.09922$ $N_2 := 1.69242$ $N_3 := .51548$ $N_4 := .40657$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

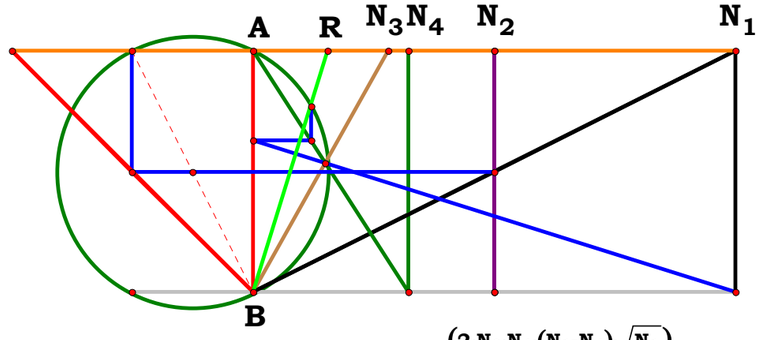
$AC := \frac{N_2}{N_1}$ $EJ := \sqrt{AB^2 + AC^2}$ $EF := \frac{EJ - AB}{2}$

$AF := \frac{AC}{2}$ $HK := \frac{EJ}{2}$ $ST := \frac{N_4}{N_4 + N_3}$ $BT := N_3 \cdot ST$

$TU := N_1 - BT$ $BO := \frac{ST \cdot N_1}{TU}$ $OP := N_4 - N_4 \cdot BO$

$GK := AF + OP$ $GH := \sqrt{HK^2 - GK^2}$ $EG := HK - GH$

$GJ := EJ - EG$ $R := \frac{OP}{GJ - EF}$ $R = 0.291496$



$N_1 = 2.00000$
$N_2 = 1.00000$
$N_3 = 0.56205$
$N_4 = 0.64118$
$R = 0.31070$

$$\frac{\left(2 \cdot N_3 \cdot N_4 \cdot (N_1 - N_4) \cdot \sqrt{N_1}\right)}{\left(\left((N_1 \cdot N_3 + N_1 \cdot N_4) - N_3 \cdot N_4\right) \cdot \sqrt{N_1}\right) + \sqrt{\left(2 \cdot N_1 \cdot N_3 \cdot N_4 \cdot (N_1 - 2 \cdot N_2 \cdot N_4) \cdot (N_1 - N_4) - N_3^2 \cdot (N_1 - N_4)^2 \cdot \left((4 \cdot N_1 \cdot N_4^2 + 4 \cdot N_2 \cdot N_4) - N_1\right)\right) + N_1^3 \cdot N_4^2}} - R = 0.00000$$

Definitions.

$$R - \frac{2 \cdot \sqrt{N_1} \cdot N_3 \cdot N_4 \cdot (N_1 - N_4)}{\sqrt{N_1} \cdot (N_1 \cdot N_3 + N_1 \cdot N_4 - N_3 \cdot N_4) + \sqrt{2 \cdot N_1 \cdot N_3 \cdot N_4 \cdot (N_1 - 2 \cdot N_2 \cdot N_4) \cdot (N_1 - N_4) - N_3^2 \cdot (N_1 - N_4)^2 \cdot (4 \cdot N_1 \cdot N_4^2 + 4 \cdot N_2 \cdot N_4 - N_1) + N_1^3 \cdot N_4^2}} = 0$$

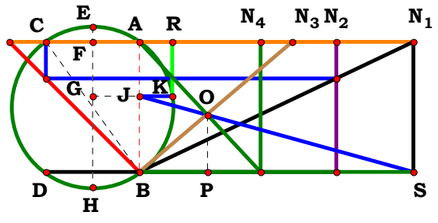
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{2 \cdot \left(\sqrt{N_u}\right)^3 \cdot (A - D) \cdot \sqrt{A \cdot B}}{\sqrt{A \cdot B} \cdot \sqrt{N_u} \cdot D \cdot (A - C - D) - \sqrt{A} \cdot \sqrt{N_u \cdot \left[B \cdot D^2 \cdot (C - A + D)^2 - 4 \cdot B \cdot N_u^2 \cdot (A - D)^2 + 4 \cdot A \cdot D \cdot N_u \cdot (A - D) \cdot (C - A + D)\right]}} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{2 \cdot \sqrt{W} \cdot Y \cdot Z \cdot \sqrt{n} \cdot (W \cdot p - Z \cdot m)}{\sqrt{2 \cdot Y \cdot W \cdot Z \cdot o \cdot p \cdot (W \cdot p - Z \cdot m) \cdot (W \cdot n \cdot p - 2 \cdot X \cdot Z \cdot m) - Y^2 \cdot (W \cdot p - Z \cdot m)^2 \cdot \left(4 \cdot W \cdot n \cdot Z^2 + 4 \cdot X \cdot m \cdot Z \cdot p - W \cdot n \cdot p^2\right) + W^3 \cdot Z^2 \cdot n \cdot o^2 \cdot p^2} + \sqrt{W} \cdot \sqrt{n} \cdot p \cdot (W \cdot Y \cdot p + W \cdot Z \cdot o - Y \cdot Z \cdot m)} = 0$$

4RST8AB2R1



$N_1 = 2.09922$
$N_2 = 1.50839$
$N_3 = 1.17412$
$N_4 = 0.92961$
$R = 0.25025$

Unit. $AB := 1$ Given. $N_1 := 2.09922$ $N_2 := 1.50839$ $N_3 := 1.17412$ $N_4 := .92961$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

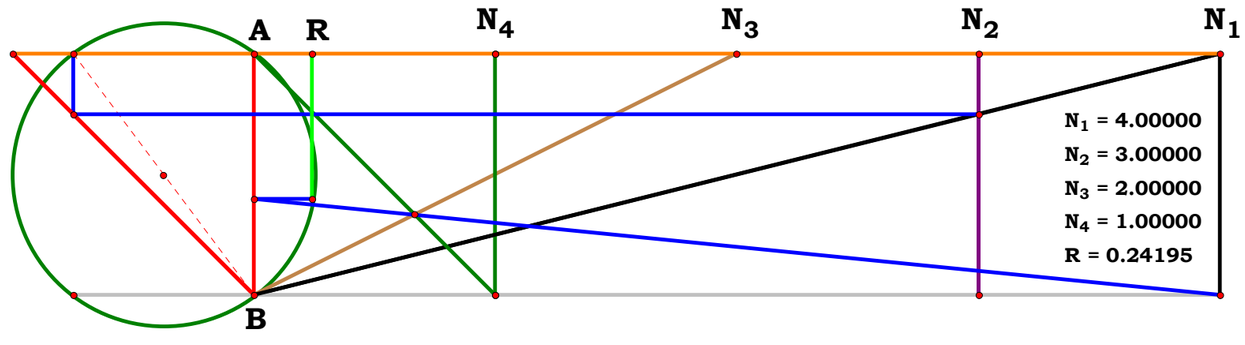
$AC := \frac{N_2}{N_1}$ $EH := \sqrt{AB^2 + AC^2}$ $AF := \frac{AC}{2}$

$EF := \frac{EH - AB}{2}$ $OP := \frac{N_4}{N_3 + N_4}$ $BP := N_3 \cdot OP$

$PS := N_1 - BP$ $BJ := \frac{OP \cdot N_1}{PS}$

$GH := BJ + EF$ $GK := \sqrt{GH \cdot (EH - GH)}$

$R := GK - AF$ $R = 0.250248$



$$\frac{\sqrt{(N_2 \cdot N_3 \cdot (N_1 - N_4))^2 + 2 \cdot N_1 \cdot N_3 \cdot N_4 \cdot (2 \cdot N_1^2 + N_2^2) \cdot (N_1 - N_4) + (N_1 \cdot N_2 \cdot N_4)^2} - N_2 \cdot ((N_1 \cdot N_3 + N_1 \cdot N_4) - N_3 \cdot N_4)}{2 \cdot N_1 \cdot ((N_1 \cdot N_3 + N_1 \cdot N_4) - N_3 \cdot N_4)} - R = 0.00000$$

Definitions.

$$R - \frac{\sqrt{AC^2 \cdot (N_1 \cdot N_3 + N_1 \cdot N_4 - N_3 \cdot N_4)^2 + 4 \cdot N_1 \cdot N_3 \cdot N_4 \cdot (N_1 - N_4)} - AC \cdot \sqrt{N_3^2 \cdot (N_1 - N_4)^2 + 2 \cdot N_3 \cdot N_1 \cdot N_4 \cdot (N_1 - N_4) + N_1^2 \cdot N_4^2}}{2 \cdot \sqrt{N_3^2 \cdot (N_1 - N_4)^2 + 2 \cdot N_3 \cdot N_1 \cdot N_4 \cdot (N_1 - N_4) + N_1^2 \cdot N_4^2}} = 0$$

$$R - \frac{\sqrt{N_2^2 \cdot N_3^2 \cdot (N_1 - N_4)^2 + 2 \cdot N_1 \cdot N_3 \cdot N_4 \cdot (2 \cdot N_1^2 + N_2^2) \cdot (N_1 - N_4) + N_1^2 \cdot N_2^2 \cdot N_4^2} - N_2 \cdot (N_1 \cdot N_3 + N_1 \cdot N_4 - N_3 \cdot N_4)}{2 \cdot N_1 \cdot (N_1 \cdot N_3 + N_1 \cdot N_4 - N_3 \cdot N_4)} = 0$$

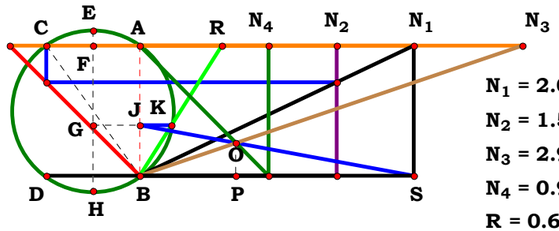
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{A \cdot (C - A + D) - \sqrt{A^2 \cdot C^2 - 2 \cdot C \cdot (A^2 + 2 \cdot B^2) \cdot (A - D) + A^2 \cdot (A - D)^2}}{2 \cdot B \cdot (A - C - D)} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{\sqrt{X^2 \cdot m^2 \cdot (W \cdot Y \cdot p + W \cdot Z \cdot o - Y \cdot Z \cdot m)^2 + 4 \cdot W^3 \cdot Y \cdot Z \cdot n^2 \cdot o \cdot (W \cdot p - Z \cdot m)} - X \cdot m \cdot (W \cdot Y \cdot p + W \cdot Z \cdot o - Y \cdot Z \cdot m)}{2 \cdot W \cdot n \cdot (W \cdot Y \cdot p + W \cdot Z \cdot o - Y \cdot Z \cdot m)} = 0$$

4RST8AB2R2



$N_1 = 2.09922$
$N_2 = 1.50839$
$N_3 = 2.93693$
$N_4 = 0.98772$
$R = 0.63389$

Unit. $AB := 1$ Given. $N_1 := 2.09922$ $N_2 := 1.50839$ $N_3 := 2.93693$ $N_4 := .98772$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

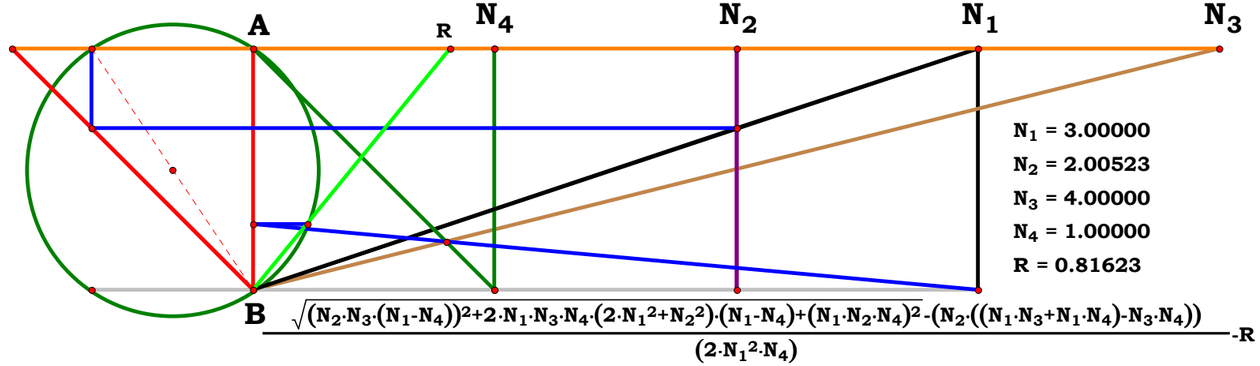
$AC := \frac{N_2}{N_1}$ $EH := \sqrt{AB^2 + AC^2}$ $AF := \frac{AC}{2}$

$EF := \frac{EH - AB}{2}$ $OP := \frac{N_4}{N_3 + N_4}$ $BP := N_3 \cdot OP$

$PS := N_1 - BP$ $BJ := \frac{OP \cdot N_1}{PS}$ $GH := BJ + EF$

$EG := EH - GH$ $GK := \sqrt{EG \cdot GH}$ $R := \frac{GK - AF}{BJ}$

$R = 0.633886$



$N_1 = 3.00000$
$N_2 = 2.00523$
$N_3 = 4.00000$
$N_4 = 1.00000$
$R = 0.81623$

$$\frac{\sqrt{(N_2 \cdot N_3 \cdot (N_1 - N_4))^2 + 2 \cdot N_1 \cdot N_3 \cdot N_4 \cdot (2 \cdot N_1^2 + N_2^2) \cdot (N_1 - N_4) + (N_1 \cdot N_2 \cdot N_4)^2} - (N_2 \cdot ((N_1 \cdot N_3 + N_1 \cdot N_4) - N_3 \cdot N_4))}{(2 \cdot N_1^2 \cdot N_4)} - R = 0.00000$$

Definitions.

$$R - \frac{\left[\sqrt{N_2^2 \cdot N_3^2 \cdot (N_1 - N_4)^2 + 2 \cdot N_1 \cdot N_3 \cdot N_4 \cdot (2 \cdot N_1^2 + N_2^2) \cdot (N_1 - N_4) + N_1^2 \cdot N_2^2 \cdot N_4^2} \cdot N_1 - N_2 \cdot \sqrt{N_1^2} \cdot \sqrt{(N_1 \cdot N_3 + N_1 \cdot N_4 - N_3 \cdot N_4)^2}\right] \cdot (N_1 \cdot N_3 + N_1 \cdot N_4 - N_3 \cdot N_4)}{2 \cdot N_1^2 \cdot N_4 \cdot \sqrt{N_1^2} \cdot \sqrt{(N_1 \cdot N_3 + N_1 \cdot N_4 - N_3 \cdot N_4)^2}} = 0$$

$$R - \frac{\sqrt{N_2^2 \cdot N_3^2 \cdot (N_1 - N_4)^2 + 2 \cdot N_1 \cdot N_3 \cdot N_4 \cdot (2 \cdot N_1^2 + N_2^2) \cdot (N_1 - N_4) + N_1^2 \cdot N_2^2 \cdot N_4^2} - N_2 \cdot (N_1 \cdot N_3 + N_1 \cdot N_4 - N_3 \cdot N_4)}{2 \cdot N_1^2 \cdot N_4} = 0$$

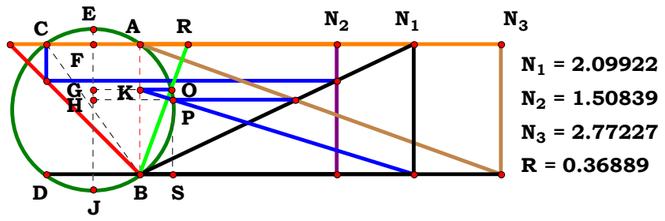
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{A \cdot (A - C - D) + \sqrt{A^2 \cdot C^2 + A^2 \cdot (A - D)^2 - 2 \cdot C \cdot (A^2 + 2 \cdot B^2) \cdot (A - D)}}{2 \cdot B \cdot C} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{\sqrt{Y^2 \cdot X^2 \cdot m^2 \cdot (W \cdot p - Z \cdot m)^2 + 2 \cdot Y \cdot W \cdot Z \cdot o \cdot (2 \cdot W^2 \cdot n^2 + X^2 \cdot m^2) \cdot (W \cdot p - Z \cdot m) + W^2 \cdot X^2 \cdot Z^2 \cdot m^2 \cdot o^2} - X \cdot m \cdot (W \cdot Y \cdot p + W \cdot Z \cdot o - Y \cdot Z \cdot m)}{2 \cdot W^2 \cdot Z \cdot n \cdot o} = 0$$

4RST8AB2R5



$N_1 = 2.09922$
$N_2 = 1.50839$
$N_3 = 2.77227$
$R = 0.36889$

Unit. $AB := 1$ **Given.** $N_1 := 2.09922$ $N_2 := 1.50839$ $N_3 := 2.77227$

Descriptions.

$$AC := \frac{N_2}{N_1} \qquad EJ := \sqrt{AB^2 + AC^2}$$

$$AF := \frac{AC}{2} \qquad EF := \frac{EJ - AB}{2}$$

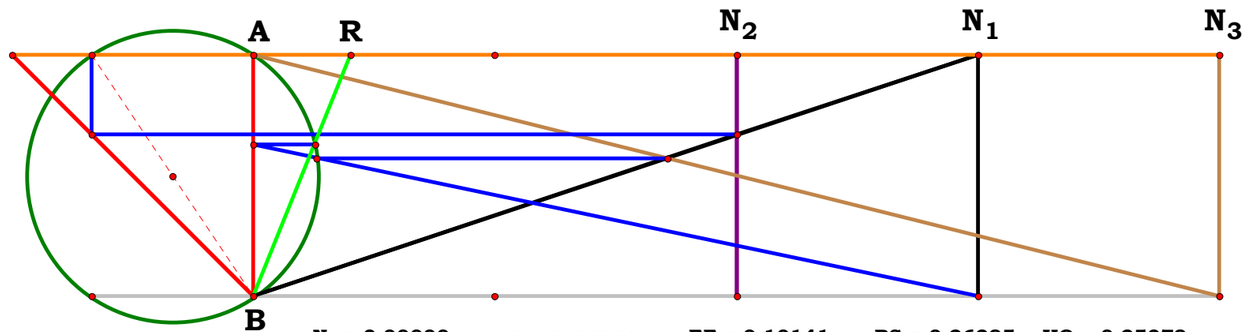
$$PS := \frac{N_3}{N_1 + N_3} \qquad HJ := PS + EF$$

$$HP := \sqrt{HJ \cdot (EJ - HJ)} \qquad BS := HP - AF$$

$$BK := \frac{PS \cdot N_1}{N_1 - BS} \qquad GJ := BK + EF$$

$$GO := \sqrt{GJ \cdot (EJ - GJ)} \qquad KO := GO - AF$$

$$R := \frac{KO}{BK} \qquad R = 0.368893$$



$N_1 = 3.00000$ $AC = 0.66841$ $EF = 0.10141$ $BS = 0.26295$ $KO = 0.25379$
$N_2 = 2.00523$ $AB = 1.00000$ $PS = 0.57143$ $BK = 0.62633$ $R - \frac{KO}{BK} = 0.00000$
$N_3 = 4.00000$ $EJ = 1.20282$ $HJ = 0.67284$ $GJ = 0.72773$
$R = 0.40520$ $AF = 0.33420$ $HP = 0.59715$ $GO = 0.58799$

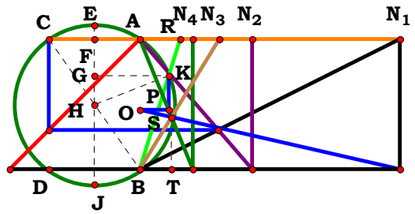
Definitions.

$$A := \sqrt{AC^2 \cdot (N_1 + N_3)^2 + 4 \cdot N_1 \cdot N_3} \qquad B := \sqrt{(N_1 + N_3)^2} \qquad C := \sqrt{(N_1 + N_3)^2 \cdot [A - B \cdot (AC + 2 \cdot N_1)]^2}$$

$$D := \sqrt{AC^2 \cdot (N_1 + N_3)^2 \cdot (A - AC \cdot B - 2 \cdot B \cdot N_1)^2 - 8 \cdot B \cdot N_1 \cdot N_3 \cdot [(N_1 + N_3) \cdot (A - AC \cdot B) - 2 \cdot B \cdot N_1^2]}$$

$$R - \frac{(AC \cdot C - D) \cdot (N_1 + N_3) \cdot (A - AC \cdot B - 2 \cdot B \cdot N_1)}{4 \cdot B \cdot C \cdot N_1 \cdot N_3} = 0$$

4RST8AB3R0



$N_1 = 1.99268$
$N_2 = 0.85944$
$N_3 = 0.61234$
$N_4 = 0.40657$
$R = 0.31026$

Unit. $AB := 1$ Given. $N_1 := 1.99268$ $N_2 := .85944$ $N_3 := .61234$ $N_4 := .40657$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

$AC := \frac{N_1}{N_1 + N_2}$ $EJ := \sqrt{AB^2 + AC^2}$ $EF := \frac{EJ - AB}{2}$

$AF := \frac{AC}{2}$ $HK := \frac{EJ}{2}$ $ST := \frac{N_4}{N_4 + N_3}$

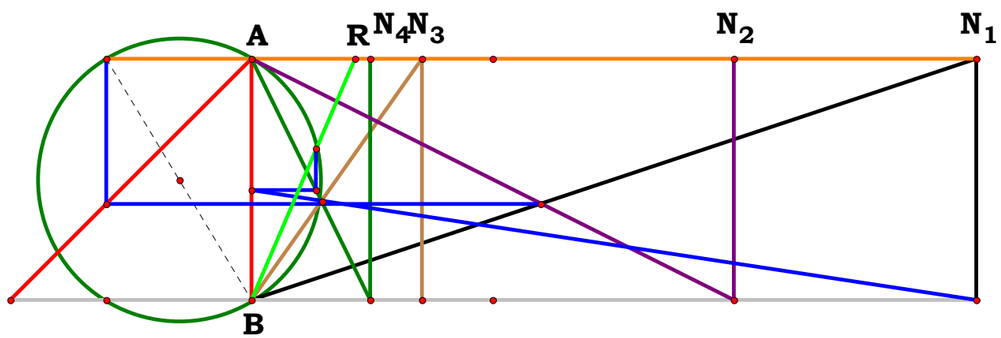
$BT := N_3 \cdot ST$ $TU := N_1 - BT$

$BO := \frac{ST \cdot N_1}{TU}$ $OP := N_4 - N_4 \cdot BO$

$GK := AF + OP$ $GH := \sqrt{HK^2 - GK^2}$

$EG := HK - GH$ $GJ := EJ - EG$

$R := \frac{OP}{GJ - EF}$ $R = 0.310256$



$N_1 = 3.00000$ $N_4 = 0.49279$
$N_2 = 2.00000$ $R = 0.42747$
$N_3 = 0.70718$

$$\frac{2 \cdot N_3 \cdot N_4 \cdot (N_1 - N_4) \cdot \sqrt{(N_1 + N_2)}}{\sqrt{((N_3^2 \cdot (N_1 - N_4)^2 \cdot ((N_1 + N_2) - 4 \cdot N_4 \cdot (N_1 + N_1 \cdot N_4 + N_2 \cdot N_4))) - (2 \cdot N_1 \cdot N_3 \cdot N_4 \cdot (N_1 - N_4) \cdot (2 \cdot N_1 \cdot N_4 - N_2 - N_1))) + (N_1^2 \cdot N_4^2 \cdot (N_1 + N_2))} + ((N_1 \cdot N_3 + N_1 \cdot N_4) - N_3 \cdot N_4) \cdot \sqrt{(N_1 + N_2)}} - R = 0.00000$$

Definitions.

$$R - \frac{2 \cdot N_3 \cdot N_4 \cdot \sqrt{N_1 + N_2} \cdot (N_1 - N_4)}{\sqrt{N_3^2 \cdot (N_1 - N_4)^2 \cdot [N_1 + N_2 - 4 \cdot N_4 \cdot (N_1 + N_1 \cdot N_4 + N_2 \cdot N_4)] - 2 \cdot N_1 \cdot N_3 \cdot N_4 \cdot (N_1 - N_4) \cdot (2 \cdot N_1 \cdot N_4 - N_2 - N_1) + N_1^2 \cdot N_4^2 \cdot (N_1 + N_2)} + \sqrt{N_1 + N_2} \cdot (N_1 \cdot N_3 + N_1 \cdot N_4 - N_3 \cdot N_4)} = 0$$

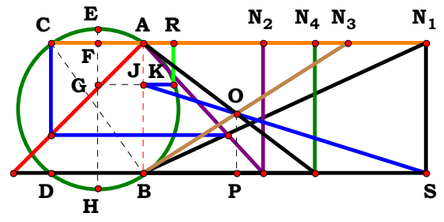
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{2 \cdot N_u \cdot \sqrt{N_u \cdot (A + B)} \cdot (A - D)}{\sqrt{N_u \cdot (A + B)} \cdot D \cdot (A - C - D) - \sqrt{N_u \cdot [D^2 \cdot (A + B) \cdot (C - A + D)^2 - 4 \cdot N_u^2 \cdot (A + B) \cdot (A - D)^2 + 4 \cdot B \cdot D \cdot N_u \cdot (A - D) \cdot (C - A + D)]}} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{2 \cdot Y \cdot Z \cdot \sqrt{W \cdot n + X \cdot m} \cdot (W \cdot p - Z \cdot m) \cdot \sqrt{m} \cdot \sqrt{n}}{\sqrt{\begin{matrix} W^2 \cdot Z^2 \cdot o^2 \cdot p^2 \cdot (W \cdot n + X \cdot m) - Y^2 \cdot (W \cdot p - Z \cdot m)^2 \cdot \left(\begin{matrix} 4 \cdot W \cdot Z^2 \cdot n + 4 \cdot X \cdot Z^2 \cdot m \ \ldots \\ + \ -W \cdot n \cdot p^2 - X \cdot m \cdot p^2 + 4 \cdot W \cdot Z \cdot n \cdot p \end{matrix}\right) \ \ldots \\ + \ -2 \cdot Y \cdot W \cdot Z \cdot o \cdot p \cdot (W \cdot p - Z \cdot m) \cdot (2 \cdot W \cdot Z \cdot n - W \cdot n \cdot p - X \cdot m \cdot p) \end{matrix}} \cdot \sqrt{m \cdot n} + \sqrt{W \cdot n + X \cdot m} \cdot \sqrt{n} \cdot \sqrt{m} \cdot p \cdot (W \cdot Y \cdot p + W \cdot Z \cdot o - Y \cdot Z \cdot m)} = 0$$

4RST8AB3R1



$N_1 = 2.16702$
$N_2 = 0.91756$
$N_3 = 1.57123$
$N_4 = 1.31704$
$R = 0.23230$

Unit. $AB := 1$ Given. $N_1 := 2.16702$ $N_2 := .91756$ $N_3 := 1.57123$ $N_4 := 1.31704$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

$AC := \frac{N_1}{N_1 + N_2}$ $EH := \sqrt{AB^2 + AC^2}$

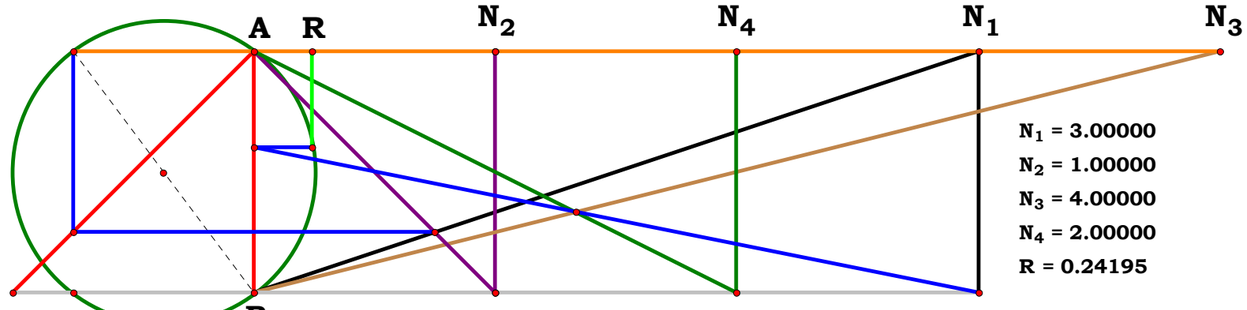
$AF := \frac{AC}{2}$ $EF := \frac{EH - AB}{2}$

$OP := \frac{N_4}{N_3 + N_4}$ $BP := N_3 \cdot OP$

$PS := N_1 - BP$ $BJ := \frac{OP \cdot N_1}{PS}$

$GH := BJ + EF$ $GK := \sqrt{GH \cdot (EH - GH)}$

$R := GK - AF$ $R = 0.232295$



$N_1 = 3.00000$
$N_2 = 1.00000$
$N_3 = 4.00000$
$N_4 = 2.00000$
$R = 0.24195$

$\frac{\sqrt{(N_1 \cdot N_3 \cdot (N_1 - N_4))^2 + 2 \cdot N_1 \cdot N_3 \cdot N_4 \cdot (3 \cdot N_1^2 + 4 \cdot N_1 \cdot N_2 + 2 \cdot N_2^2) \cdot (N_1 - N_4) + N_1^4 \cdot N_4^2} - N_1 \cdot ((N_1 \cdot N_3 + N_1 \cdot N_4) - N_3 \cdot N_4)}{2 \cdot (N_1 + N_2) \cdot ((N_1 \cdot N_3 + N_1 \cdot N_4) - N_3 \cdot N_4)} - R = 0.00000$

Definitions.

$$R - \frac{\sqrt{N_1^2 \cdot N_3^2 \cdot (N_1 - N_4)^2 + 2 \cdot N_1 \cdot N_3 \cdot N_4 \cdot \left(3 \cdot N_1^2 + 4 \cdot N_1 \cdot N_2 + 2 \cdot N_2^2\right) \cdot (N_1 - N_4) + N_1^4 \cdot N_4^2} - N_1 \cdot (N_1 \cdot N_3 + N_1 \cdot N_4 - N_3 \cdot N_4)}{2 \cdot (N_1 + N_2) \cdot (N_1 \cdot N_3 + N_1 \cdot N_4 - N_3 \cdot N_4)} = 0$$

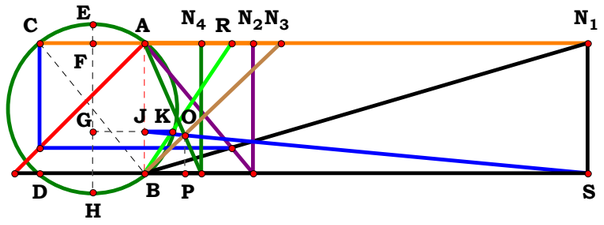
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{\sqrt{B^2 \cdot C^2 + B^2 \cdot (A - D)^2 - 2 \cdot C \cdot (A - D) \cdot (2 \cdot A^2 + 4 \cdot A \cdot B + 3 \cdot B^2)} + B \cdot (A - C - D)}{(A + B) \cdot (2 \cdot C - 2 \cdot A + 2 \cdot D)} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{\sqrt{\begin{matrix} Y^2 \cdot W^2 \cdot n^2 \cdot (W \cdot p - Z \cdot m)^2 \ \ldots \\ + \ 2 \cdot Y \cdot W \cdot Z \cdot o \cdot \left(3 \cdot W^2 \cdot n^2 + 4 \cdot W \cdot X \cdot m \cdot n + 2 \cdot X^2 \cdot m^2\right) \cdot (W \cdot p - Z \cdot m) + W^4 \cdot Z^2 \cdot n^2 \cdot o^2 \end{matrix}} - W \cdot n \cdot (W \cdot Y \cdot p + W \cdot Z \cdot o - Y \cdot Z \cdot m)}{(2 \cdot W \cdot n + 2 \cdot X \cdot m) \cdot (W \cdot Y \cdot p + W \cdot Z \cdot o - Y \cdot Z \cdot m)} = 0$$

4RST8AB3R2



$N_1 = 3.39712$
$N_2 = 0.83038$
$N_3 = 1.04820$
$N_4 = 0.43563$
$R = 0.66502$

Unit. $AB := 1$ Given. $N_1 := 3.39712$ $N_2 := .83038$ $N_3 := 1.04820$ $N_4 := .43563$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

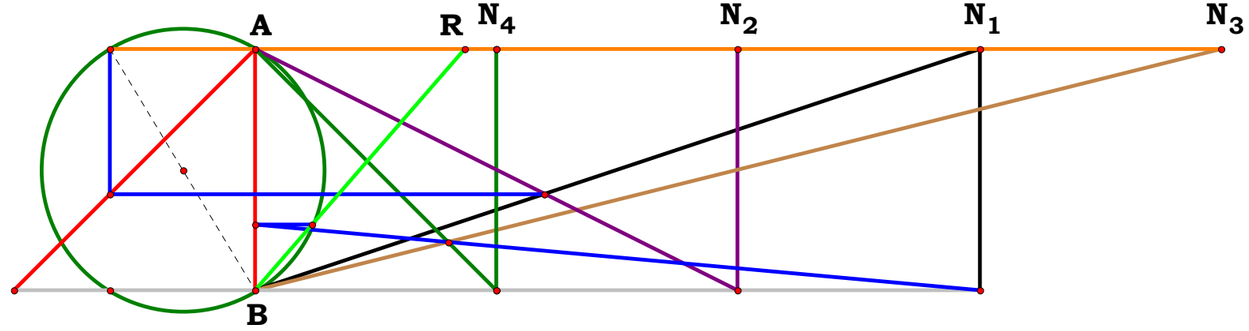
$AC := \frac{N_1}{N_1 + N_2}$ $EH := \sqrt{AB^2 + AC^2}$ $AF := \frac{AC}{2}$

$EF := \frac{EH - AB}{2}$ $OP := \frac{N_4}{N_3 + N_4}$ $BP := N_3 \cdot OP$

$PS := N_1 - BP$ $BJ := \frac{OP \cdot N_1}{PS}$ $GH := BJ + EF$

$EG := EH - GH$ $GK := \sqrt{EG \cdot GH}$

$R := \frac{GK - AF}{BJ}$ $R = 0.665024$



$N_1 = 3.00000$
$N_2 = 2.00000$
$N_3 = 4.00000$
$N_4 = 1.00000$
$R = 0.86893$

Definitions.

$$\frac{\sqrt{(N_1 \cdot N_3 \cdot (N_1 - N_4))^2 + 2 \cdot N_1 \cdot N_3 \cdot N_4 \cdot (3 \cdot N_1^2 + 4 \cdot N_1 \cdot N_2 + 2 \cdot N_2^2) \cdot (N_1 - N_4) + N_1^4 \cdot N_4^2} - N_1 \cdot ((N_1 \cdot N_3 + N_1 \cdot N_4) - N_3 \cdot N_4)}{2 \cdot (N_1 + N_2) \cdot N_1 \cdot N_4} - R = 0.00000$$

$$R - \frac{\sqrt{N_1^2 \cdot N_3^2 \cdot (N_1 - N_4)^2 + 2 \cdot N_1 \cdot N_3 \cdot N_4 \cdot (3 \cdot N_1^2 + 4 \cdot N_1 \cdot N_2 + 2 \cdot N_2^2) \cdot (N_1 - N_4) + N_1^4 \cdot N_4^2} - N_1 \cdot (N_1 \cdot N_3 + N_1 \cdot N_4 - N_3 \cdot N_4)}{2 \cdot (N_1 + N_2) \cdot N_1 \cdot N_4} = 0$$

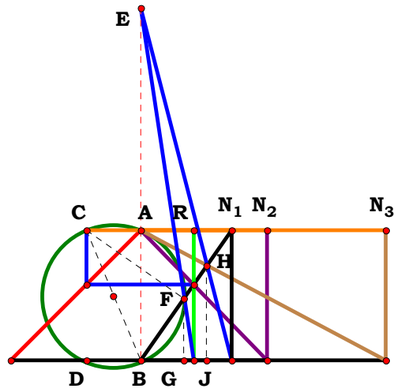
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{\sqrt{B^2 \cdot C^2 + B^2 \cdot (A - D)^2 - 2 \cdot C \cdot (A - D) \cdot (2 \cdot A^2 + 4 \cdot A \cdot B + 3 \cdot B^2)} + B \cdot (A - C - D)}{2 \cdot C \cdot (A + B)} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{\sqrt{Y^2 \cdot W^2 \cdot n^2 \cdot (W \cdot p - Z \cdot m)^2 + 2 \cdot Y \cdot W \cdot Z \cdot o \cdot (3 \cdot W^2 \cdot n^2 + 4 \cdot W \cdot X \cdot m \cdot n + 2 \cdot X^2 \cdot m^2) \cdot (W \cdot p - Z \cdot m) + W^4 \cdot Z^2 \cdot n^2 \cdot o^2} - W \cdot n \cdot (W \cdot Y \cdot p + W \cdot Z \cdot o - Y \cdot Z \cdot m)}{2 \cdot W \cdot Z \cdot o \cdot (W \cdot n + X \cdot m)} = 0$$

4RST8AB3R4



$N_1 = 0.69478$
$N_2 = 0.96599$
$N_3 = 1.88118$
$R = 0.40372$

Unit. $AB := 1$ **Given.** $N_1 := .69478$ $N_2 := .96599$ $N_3 := 1.88118$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

$AC := \frac{N_1}{N_1 + N_2}$ $HJ := \frac{N_3}{N_1 + N_3}$

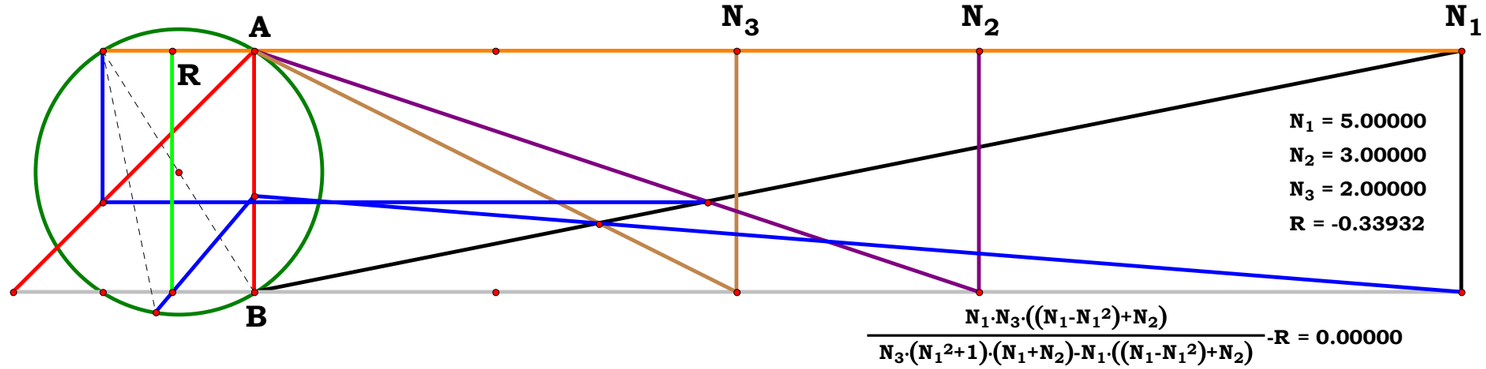
$BJ := N_1 \cdot HJ$ $BN_1 := \sqrt{AB^2 + N_1^2}$

$FN_1 := \frac{N_1 \cdot (N_1 + AC)}{BN_1}$ $BF := BN_1 - FN_1$

$BG := \frac{N_1 \cdot BF}{BN_1}$ $FG := \frac{BG}{N_1}$

$BE := \frac{HJ \cdot N_1}{N_1 - BJ}$ $R := \frac{BE \cdot BG}{BE - FG}$

$R = 0.403719$



$N_1 = 5.00000$
$N_2 = 3.00000$
$N_3 = 2.00000$
$R = -0.33932$

$\frac{N_1 \cdot N_3 \cdot ((N_1 - N_1^2) + N_2)}{N_3 \cdot (N_1^2 + 1) \cdot (N_1 + N_2) - N_1 \cdot ((N_1 - N_1^2) + N_2)} - R = 0.00000$

Definitions.

$$R - \frac{N_1 \cdot N_3 \cdot (N_1 - N_1^2 + N_2)}{N_3 \cdot (N_1^2 + 1) \cdot (N_1 + N_2) - N_1 \cdot (N_1 - N_1^2 + N_2)} = 0$$

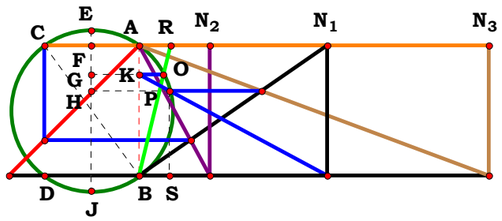
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$

$$R - \frac{N_u \cdot (A^2 + B \cdot A - B \cdot N_u)}{(A + B) \cdot N_u^2 + B \cdot C \cdot N_u + A \cdot (A - C) \cdot (A + B)} = 0$$

$N_1 - \frac{X}{o} = 0$ $N_2 - \frac{Y}{p} = 0$ $N_3 - \frac{Z}{q} = 0$

$$R - \frac{X \cdot Z \cdot (p \cdot X \cdot o - p \cdot X^2 + Y \cdot o^2)}{Z \cdot (X^2 + o^2) \cdot (X \cdot p + Y \cdot o) + X \cdot q \cdot (p \cdot X^2 - p \cdot X \cdot o - Y \cdot o^2)} = 0$$

4RST8AB3R5



N_1 = 1.44059
N_2 = 0.53981
N_3 = 2.68510
R = 0.24210

Unit. $AB := 1$ **Given.** $N_1 := 1.44059$ $N_2 := .53981$ $N_3 := 2.68510$

Descriptions.

$$AC := \frac{N_1}{N_1 + N_2} \qquad EJ := \sqrt{AB^2 + AC^2}$$

$$AF := \frac{AC}{2} \qquad EF := \frac{EJ - AB}{2}$$

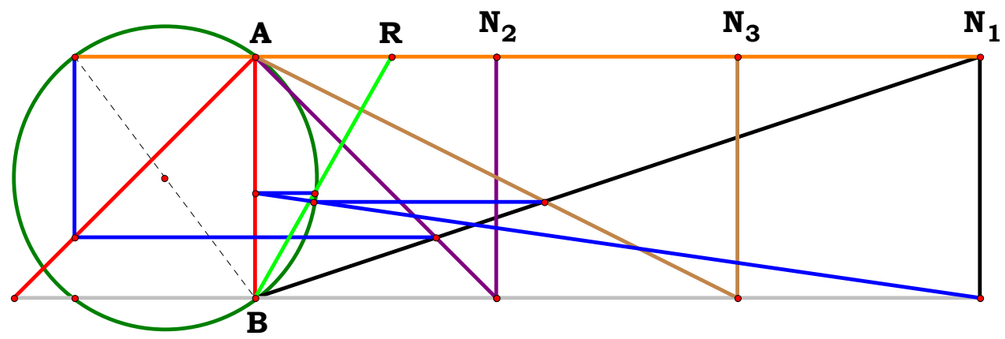
$$PS := \frac{N_3}{N_1 + N_3} \qquad HJ := PS + EF$$

$$HP := \sqrt{HJ \cdot (EJ - HJ)} \qquad BS := HP - AF$$

$$BK := \frac{PS \cdot N_1}{N_1 - BS} \qquad GJ := BK + EF$$

$$GO := \sqrt{GJ \cdot (EJ - GJ)} \qquad KO := GO - AF$$

$$R := \frac{KO}{BK} \qquad R = 0.242104$$



N_1 = 3.00000	AB = 1.00000	EF = 0.12500	BS = 0.24195	KO = 0.24662
N_2 = 1.00000	AC = 0.75000	PS = 0.40000	BK = 0.43509	KO
N_3 = 2.00000	EJ = 1.25000	HJ = 0.52500	GJ = 0.56009	$R - \frac{KO}{BK}$ = 0.00000
R = 0.56683	AF = 0.37500	HP = 0.61695	GO = 0.62162	

Definitions.

$$A := \sqrt{AC^2 \cdot (N_1 + N_3)^2 + 4 \cdot N_1 \cdot N_3} \qquad B := \sqrt{(N_1 + N_3)^2} \qquad C := \sqrt{(N_1 + N_3)^2 \cdot [A - B \cdot (AC + 2 \cdot N_1)]^2}$$

$$D := \sqrt{AC^2 \cdot (N_1 + N_3)^2 \cdot (A - AC \cdot B - 2 \cdot B \cdot N_1)^2 - 8 \cdot B \cdot N_1 \cdot N_3 \cdot [(N_1 + N_3) \cdot (A - AC \cdot B) - 2 \cdot B \cdot N_1^2]}$$

$$R - \frac{(AC \cdot C - D) \cdot (N_1 + N_3) \cdot (A - AC \cdot B - 2 \cdot B \cdot N_1)}{4 \cdot B \cdot C \cdot N_1 \cdot N_3} = 0$$

$$AC - \frac{N_1}{N_1 + N_2} = 0 \qquad EJ - \frac{\sqrt{2 \cdot N_1^{\,2} + 2 \cdot N_1 \cdot N_2 + N_2^{\,2}}}{(N_1 + N_2)} = 0 \qquad AF - \frac{N_1}{2 \cdot (N_1 + N_2)} = 0$$

$$EF - \frac{\sqrt{2 \cdot N_1^{\,2} + 2 \cdot N_1 \cdot N_2 + N_2^{\,2}} - N_2 - N_1}{2 \cdot (N_1 + N_2)} = 0 \qquad PS - \frac{N_3}{N_1 + N_3} = 0$$

$$HJ - \frac{(N_1 + N_3) \cdot \sqrt{2 \cdot N_1^{\,2} + 2 \cdot N_1 \cdot N_2 + N_2^{\,2}} - (N_1 - N_3) \cdot (N_1 + N_2)}{2 \cdot (N_1 + N_2) \cdot (N_1 + N_3)} = 0$$

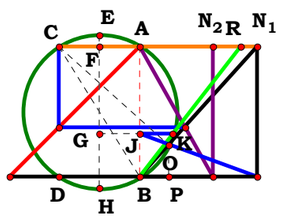
$$HP - \frac{\sqrt{N_1^{\,4} + 6 \cdot N_1^{\,3} \cdot N_3 + 8 \cdot N_1^{\,2} \cdot N_2 \cdot N_3 + N_1^{\,2} \cdot N_3^{\,2} + 4 \cdot N_1 \cdot N_2^{\,2} \cdot N_3}}{\sqrt{4 \cdot \left(N_1^{\,4} + 2 \cdot N_1^{\,3} \cdot N_2 + 2 \cdot N_1^{\,3} \cdot N_3 + N_1^{\,2} \cdot N_2^{\,2} + 4 \cdot N_1^{\,2} \cdot N_2 \cdot N_3 + N_1^{\,2} \cdot N_3^{\,2} + 2 \cdot N_1 \cdot N_2^{\,2} \cdot N_3 + 2 \cdot N_1 \cdot N_2 \cdot N_3^{\,2} + N_2^{\,2} \cdot N_3^{\,2}\right)}} = 0$$

$$BS - (HP - AF) = 0 \qquad BK - \frac{PS \cdot N_1}{N_1 - BS} = 0$$

$$GJ - (BK + EF) = 0 \qquad GO - \sqrt{GJ \cdot (EJ - GJ)} = 0 \qquad KO - (GO - AF) = 0$$

$$R - \frac{KO}{BK} = 0$$

4RST8AB3R6



$N_1 = 0.89818$
$N_2 = 0.55918$
$R = 0.77237$

Unit. $AB := 1$ Given. $N_1 := .89818$ $N_2 := .55918$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $Y := 20$ $Z := 19$ $p := \frac{Y}{N_1}$ $q := \frac{Z}{N_2}$

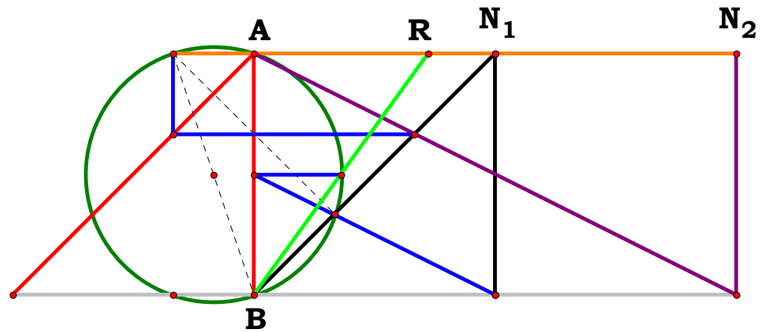
Descriptions.

$AC := \frac{N_1}{N_1 + N_2}$ $EH := \sqrt{AB^2 + AC^2}$ $AF := \frac{AC}{2}$ $EF := \frac{EH - AB}{2}$ $BN_1 := \sqrt{AB^2 + N_1^2}$

$ON_1 := \frac{N_1 \cdot (N_1 + AC)}{BN_1}$ $BO := BN_1 - ON_1$ $BP := \frac{N_1 \cdot BO}{BN_1}$

$OP := \frac{BP}{N_1}$ $BJ := \frac{OP \cdot N_1}{N_1 - BP}$ $GH := BJ + EF$ $GK := \sqrt{GH \cdot (EH - GH)}$

$JK := GK - AF$ $R := \frac{JK}{BJ}$ $R = 0.772363$



$N_1 = 1.00000$
$N_2 = 2.00000$
$R = 0.72076$

$$\frac{(N_1^3 \cdot N_2 + N_1^3 + N_1^4) - \sqrt{(((N_1^8 + (2 \cdot N_1^5 \cdot (N_2 - 1) \cdot (N_1^2 - 6 \cdot N_2 - 6)) + (N_1^6 \cdot (N_2^2 - 10 \cdot N_2 - 3))) - (4 \cdot N_1^4 \cdot ((N_2^3 - 4 \cdot N_2^2 - 9 \cdot N_2) + 1))) + (4 \cdot N_1^3 \cdot N_2 \cdot ((4 \cdot N_2^2 + 9 \cdot N_2) - 4)) + (4 \cdot N_1^2 \cdot N_2^2 \cdot ((N_2^2 + 3 \cdot N_2) - 6))) - (4 \cdot N_2^3 \cdot (4 \cdot N_1 + N_2))}}{2 \cdot (N_1 + N_2) \cdot (N_1^2 - N_1 - N_2)} - R = 0.00000$$

Definitions.

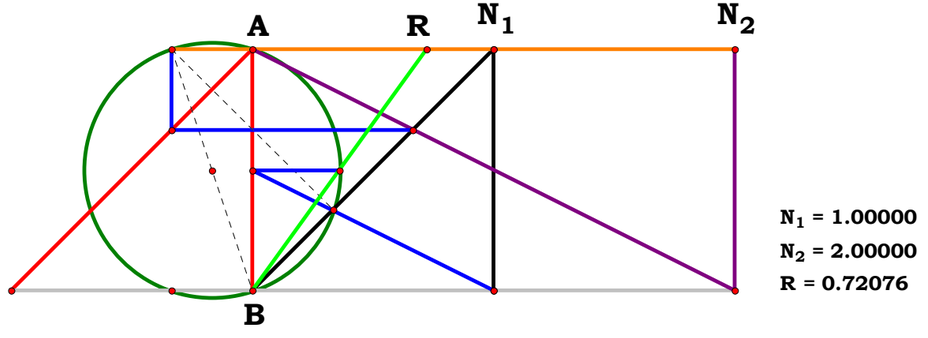
$$R - \frac{N_1^3 \cdot N_2 + N_1^3 + N_1^4 - \sqrt{\begin{matrix} N_1^8 + 2 \cdot N_1^5 \cdot (N_2 - 1) \cdot (N_1^2 - 6 \cdot N_2 - 6) + N_1^6 \cdot (N_2^2 - 10 \cdot N_2 - 3) \ \ldots \\ + \ -4 \cdot N_1^4 \cdot (N_2^3 - 4 \cdot N_2^2 - 9 \cdot N_2 + 1) + 4 \cdot N_1^3 \cdot N_2 \cdot (4 \cdot N_2^2 + 9 \cdot N_2 - 4) \ \ldots \\ + \ 4 \cdot N_1^2 \cdot N_2^2 \cdot (N_2^2 + 3 \cdot N_2 - 6) - 4 \cdot N_2^3 \cdot (4 \cdot N_1 + N_2) \end{matrix}}}{2 \cdot (N_1 + N_2) \cdot (N_1^2 - N_1 - N_2)} = 0$$

$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$

$$R - \frac{\sqrt{\begin{matrix} N_u^4 \cdot B^2 \cdot (A + B)^2 - 2 \cdot N_u^3 \cdot A \cdot B \cdot (A + B) \cdot (2 \cdot A^2 + 4 \cdot A \cdot B + B^2) \ \ldots \\ + \ N_u^2 \cdot A^2 \cdot (2 \cdot A^2 + 2 \cdot A \cdot B - B^2) \cdot (2 \cdot A^2 + 6 \cdot A \cdot B + 3 \cdot B^2) + 12 \cdot N_u \cdot A^3 \cdot B \cdot (A + B)^3 - 4 \cdot A^4 \cdot (A + B)^4 \end{matrix}} - B \cdot N_u \cdot [A \cdot B + N_u \cdot (A + B)]}{2 \cdot A \cdot (A + B) \cdot (A^2 + B \cdot A - B \cdot N_u)} = 0$$

$$N_1 - \frac{Y}{p} = 0 \qquad N_2 - \frac{Z}{q} = 0$$

$$R - \frac{Y^3 \cdot q \cdot (Y \cdot q + Z \cdot p + p \cdot q) - \sqrt{\begin{matrix} q^4 \cdot Y^8 + 2 \cdot Y^7 \cdot p \cdot q^3 \cdot (Z - q) + Y^6 \cdot p^2 \cdot q^2 \cdot \left(Z^2 - 10 \cdot Z \cdot q - 3 \cdot q^2\right) \ \ldots \\ + \ -12 \cdot Y^5 \cdot p^3 \cdot q^2 \cdot (Z - q) \cdot (Z + q) + -4 \cdot Y^4 \cdot p^4 \cdot q \cdot \left(Z^3 - 4 \cdot Z^2 \cdot q - 9 \cdot Z \cdot q^2 + q^3\right) \ \ldots \\ + \ 4 \cdot Y^3 \cdot Z \cdot p^5 \cdot q \cdot \left(4 \cdot Z^2 + 9 \cdot Z \cdot q - 4 \cdot q^2\right) + 4 \cdot Y^2 \cdot Z^2 \cdot p^6 \cdot \left(Z^2 + 3 \cdot Z \cdot q - 6 \cdot q^2\right) - 4 \cdot Z^3 \cdot p^7 \cdot (4 \cdot Y \cdot q + Z \cdot p) \end{matrix}}}{2 \cdot p \cdot (Y \cdot q + Z \cdot p) \cdot \left(q \cdot Y^2 - q \cdot Y \cdot p - Z \cdot p^2\right)} = 0$$



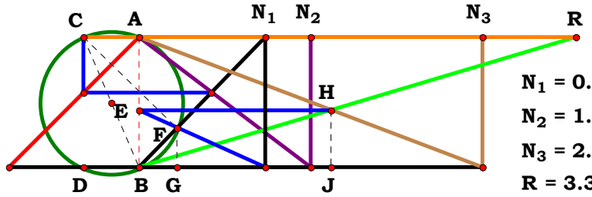
$N_1 = 1.00000$

$N_2 = 2.00000$

$R = 0.72076$

$$\frac{(N_1^3 \cdot N_2 + N_1^3 + N_1^4) - \sqrt{(((N_1^8 + (2 \cdot N_1^5 \cdot (N_2 - 1) \cdot (N_1^2 - 6 \cdot N_2 - 6)) + (N_1^6 \cdot (N_2^2 - 10 \cdot N_2 - 3))) - (4 \cdot N_1^4 \cdot ((N_2^3 - 4 \cdot N_2^2 - 9 \cdot N_2) + 1))) + (4 \cdot N_1^3 \cdot N_2 \cdot ((4 \cdot N_2^2 + 9 \cdot N_2) - 4)) + (4 \cdot N_1^2 \cdot N_2^2 \cdot ((N_2^2 + 3 \cdot N_2) - 6))) - (4 \cdot N_2^3 \cdot (4 \cdot N_1 + N_2))}}{2 \cdot (N_1 + N_2) \cdot (N_1^2 - N_1 - N_2)} - R = 0.00000$$

4RST8AB3R7



$N_1 = 0.96599$
$N_2 = 1.31467$
$N_3 = 2.63667$
$R = 3.35322$

Unit. $AB := 1$ Given. $N_1 := .96599$ $N_2 := 1.31467$ $N_3 := 2.63667$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

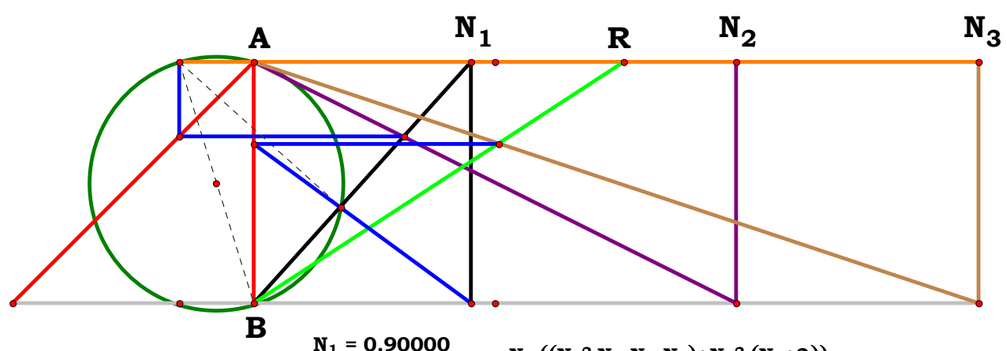
$$AC := \frac{N_1}{N_1 + N_2} \qquad BN_1 := \sqrt{AB^2 + N_1^2}$$

$$FN_1 := \frac{N_1 \cdot (N_1 + AC)}{BN_1} \qquad BF := BN_1 - FN_1$$

$$BG := \frac{N_1 \cdot BF}{BN_1} \qquad FG := \frac{BG}{N_1} \qquad BE := \frac{FG \cdot N_1}{N_1 - BG}$$

$$BJ := N_3 \cdot (AB - BE) \qquad R := \frac{BJ}{BE}$$

$R = 3.353318$



$N_1 = 0.90000$
$N_2 = 2.00000$
$N_3 = 3.00000$
$R = 1.53445$

$$\frac{N_3 \cdot ((N_1^2 \cdot N_2 - N_1 - N_2) + N_1^2 \cdot (N_1 + 2))}{(N_1 - N_1^2) + N_2} - R = 0.00000$$

Definitions.

$$R - \frac{N_3 \cdot \left[N_1^2 \cdot N_2 - N_1 - N_2 + N_1^2 \cdot (N_1 + 2) \right]}{N_1 - N_1^2 + N_2} = 0$$

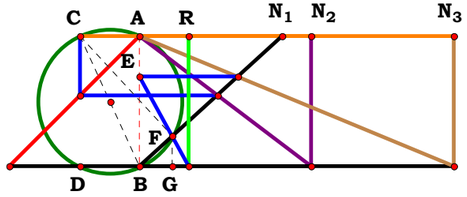
$$N_1 - \frac{N_u}{A} = 0 \qquad N_2 - \frac{N_u}{B} = 0 \qquad N_3 - \frac{N_u}{C} = 0$$

$$R - \frac{N_u \cdot \left[A \cdot \left(N_u^2 - B \cdot A - A^2 \right) + B \cdot N_u \cdot (2 \cdot A + N_u) \right]}{A \cdot C \cdot \left(A^2 + B \cdot A - B \cdot N_u \right)} = 0$$

$$N_1 - \frac{X}{o} = 0 \qquad N_2 - \frac{Y}{p} = 0 \qquad N_3 - \frac{Z}{q} = 0$$

$$R - \frac{Z \cdot \left(X^3 \cdot p - Y \cdot o^3 + X^2 \cdot Y \cdot o - X \cdot o^2 \cdot p + 2 \cdot X^2 \cdot o \cdot p \right)}{o \cdot q \cdot \left(p \cdot X \cdot o - p \cdot X^2 + Y \cdot o^2 \right)} = 0$$

4RST8AB3R8



$N_1 = 1.09190$
$N_2 = 1.31467$
$N_3 = 2.41390$
$R = 0.37752$

Unit. $AB := 1$ **Given.** $N_1 := 1.09190$ $N_2 := 1.31467$ $N_3 := 2.41390$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

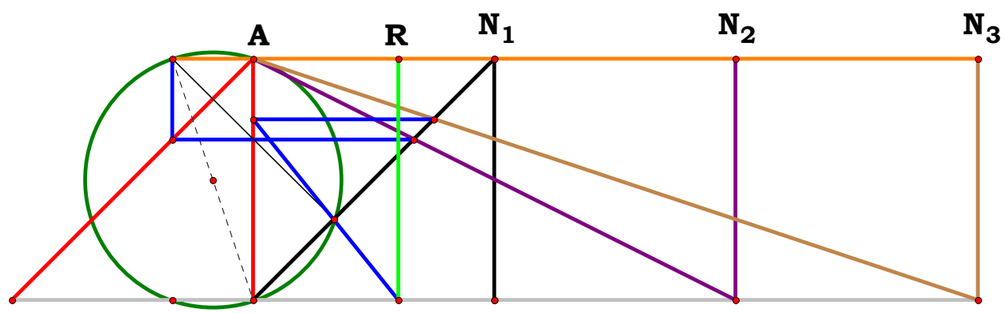
Descriptions.

$$AC := \frac{N_1}{N_1 + N_2} \qquad BE := \frac{N_3}{N_1 + N_3}$$

$$BN_1 := \sqrt{AB^2 + N_1^2} \qquad FN_1 := \frac{N_1 \cdot (N_1 + AC)}{BN_1}$$

$$BF := BN_1 - FN_1 \qquad BG := \frac{N_1 \cdot BF}{BN_1}$$

$$FG := \frac{BG}{N_1} \qquad R := \frac{BG \cdot BE}{BE - FG} \qquad R = 0.37752$$



Definitions.

$$R - \frac{N_3 \cdot \left(N_1 - N_1^2 + N_2\right)}{N_1 \cdot N_3 \cdot \left(N_1 + N_2 + 1\right) + N_1^2 - N_1 - N_2} = 0$$

$$N_1 - \frac{N_u}{A} = 0 \qquad N_2 - \frac{N_u}{B} = 0 \qquad N_3 - \frac{N_u}{C} = 0$$

$$R - \frac{N_u \cdot \left[A^2 + B \cdot \left(A - N_u\right)\right]}{N_u^2 \cdot (A + B) + N_u \cdot B \cdot (A + C) - A \cdot C \cdot (A + B)} = 0$$

$$N_1 - \frac{X}{o} = 0 \qquad N_2 - \frac{Y}{p} = 0 \qquad N_3 - \frac{Z}{q} = 0$$

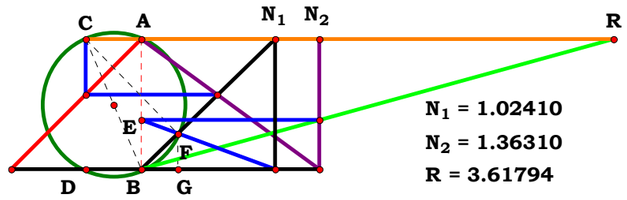
$$R - \frac{Z \cdot \left(p \cdot X \cdot o - p \cdot X^2 + Y \cdot o^2\right)}{Y \cdot o \cdot (X \cdot Z - o \cdot q) + X \cdot p \cdot (X \cdot Z + X \cdot q + Z \cdot o - o \cdot q)} = 0$$

B

$N_1 = 1.00000$
$N_2 = 2.00000$
$N_3 = 3.00000$
$R = 0.60000$

$$\frac{N_3 \cdot ((N_1 - N_1^2) + N_2)}{(N_1 \cdot 3 \cdot (N_1 + N_2 + 1) + N_1^2) - N_1 - N_2} - R = 0.00000$$

4RST8AB3R9



$N_1 = 1.02410$
$N_2 = 1.36310$
$R = 3.61794$

Unit. $AB := 1$ Given. $N_1 := 1.02410$ $N_2 := 1.36310$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $Y := 20$ $Z := 19$ $p := \frac{Y}{N_1}$ $q := \frac{Z}{N_2}$

Descriptions.

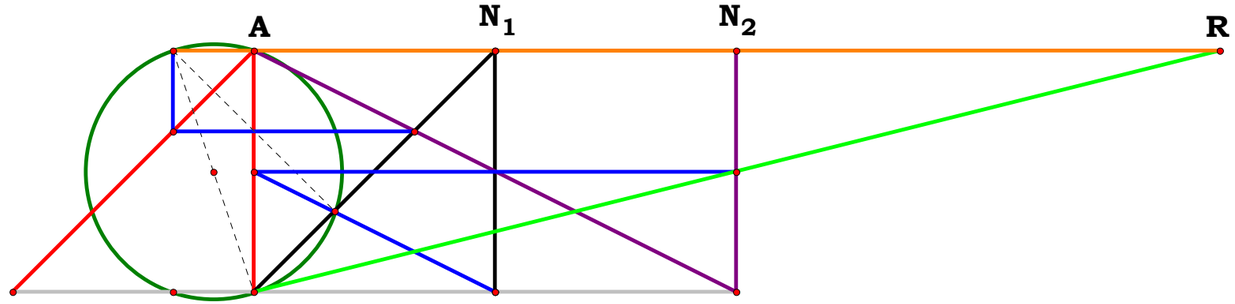
$AC := \frac{N_1}{N_1 + N_2}$ $BN_1 := \sqrt{AB^2 + N_1^2}$

$FN_1 := \frac{N_1 \cdot (N_1 + AC)}{BN_1}$ $BF := BN_1 - FN_1$

$BG := \frac{N_1 \cdot BF}{BN_1}$ $FG := \frac{BG}{N_1}$

$BE := \frac{FG \cdot N_1}{N_1 - BG}$ $R := \frac{N_2}{BE}$

$R = 3.617938$



Definitions.

$$R - \frac{N_1^2 \cdot N_2 \cdot (N_1 + N_2 + 1)}{N_1 - N_1^2 + N_2} = 0$$

$N_1 = 1.00000$
$N_2 = 2.00000$
$R = 4.00000$

B $\frac{N_1^2 \cdot N_2 \cdot (N_1 + N_2 + 1)}{(N_1 - N_1^2) + N_2} - R = 0.00000$

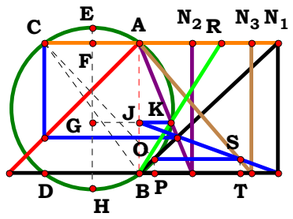
$$N_1 - \frac{N_u}{A} = 0 \qquad N_2 - \frac{N_u}{B} = 0$$

$$R - \frac{N_u^2 \cdot [A \cdot B + N_u \cdot (A + B)]}{A \cdot B \cdot (A^2 + B \cdot A - B \cdot N_u)} = 0$$

$$N_1 - \frac{Y}{p} = 0 \qquad N_2 - \frac{Z}{q} = 0$$

$$R - \frac{Y^2 \cdot Z \cdot (Y \cdot q + Z \cdot p + p \cdot q)}{p \cdot q \cdot (q \cdot Y \cdot p - q \cdot Y^2 + Z \cdot p^2)} = 0$$

4RST8AB3R10



$N_1 = 1.06284$
$N_2 = 0.40421$
$N_3 = 0.86417$
$R = 0.62545$

Unit. $AB := 1$ **Given.** $N_1 := 1.06284$ $N_2 := .40421$ $N_3 := .86417$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

Descriptions.

$AC := \frac{N_1}{N_1 + N_2}$ $EH := \sqrt{AB^2 + AC^2}$

$AF := \frac{AC}{2}$ $EF := \frac{EH - AB}{2}$

$BN_1 := \sqrt{AB^2 + N_1^2}$ $ON_1 := \frac{N_1 \cdot (N_1 + AC)}{BN_1}$

$BO := BN_1 - ON_1$ $BP := \frac{N_1 \cdot BO}{BN_1}$

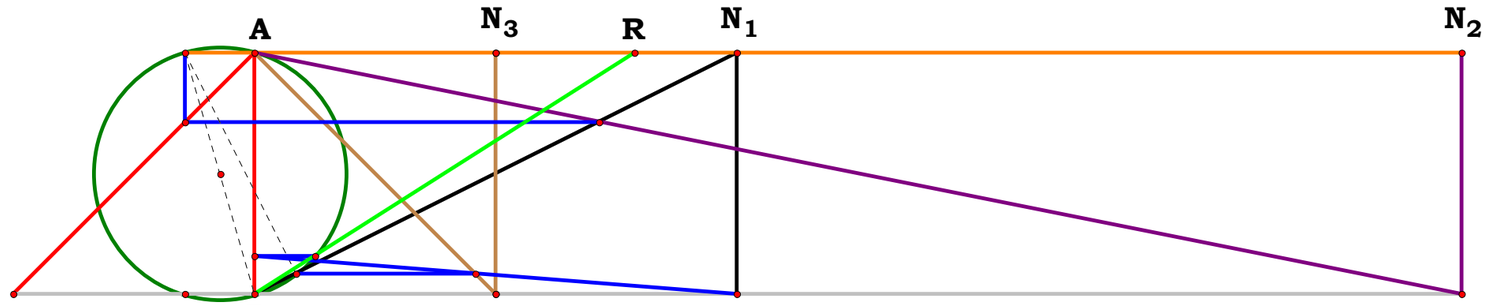
$OP := \frac{BP}{N_1}$ $BT := N_3 \cdot (AB - OP)$

$BJ := \frac{OP \cdot N_1}{N_1 - BT}$ $GH := BJ + EF$

$GK := \sqrt{GH \cdot (EH - GH)}$ $R := \frac{GK - AF}{BJ}$

$R = 0.625446$

Definitions.



$N_1 = 2.00000$
$N_2 = 5.00000$
$N_3 = 1.00000$
$R = 1.57555$

$AB = 1.00000$
$AC = 0.28571$
$EH = 1.04002$
$AF = 0.14286$

$EF = 0.02001$
$BN_1 = 2.23607$
$ON_1 = 2.04441$
$BO = 0.19166$

$BP = 0.17143$
$OP = 0.08571$
$BT = 0.91429$
$BJ = 0.15789$

$GH = 0.17790$
$GK = 0.39163$
$R - \frac{GK - AF}{BJ} = 0.00000$

$$AC - \frac{N_1}{N_1 + N_2} = 0 \qquad EH - \frac{\sqrt{2 \cdot N_1^{\,2} + 2 \cdot N_1 \cdot N_2 + N_2^{\,2}}}{(N_1 + N_2)} = 0 \qquad AF - \frac{N_1}{2 \cdot (N_1 + N_2)} = 0$$

$$EF - \frac{\left(\sqrt{2 \cdot N_1^{\,2} + 2 \cdot N_1 \cdot N_2 + N_2^{\,2}} - N_2 - N_1\right)}{2 \cdot (N_1 + N_2)} = 0 \qquad BN_1 - \sqrt{N_1^{\,2} + 1} = 0$$

$$ON_1 - \frac{N_1^{\,2} \cdot (N_1 + N_2 + 1)}{(N_1 + N_2) \cdot \sqrt{N_1^{\,2} + 1}} = 0 \qquad BO - \frac{N_1 - N_1^{\,2} + N_2}{(N_1 + N_2) \cdot \sqrt{N_1^{\,2} + 1}} = 0 \qquad BP - \frac{N_1 \cdot (N_1 - N_1^{\,2} + N_2)}{(N_1 + N_2) \cdot (N_1^{\,2} + 1)} = 0$$

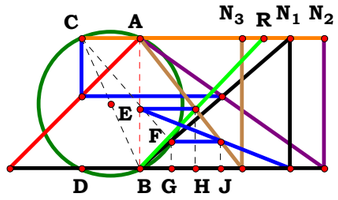
$$OP - \frac{N_1 - N_1^{\,2} + N_2}{(N_1 + N_2) \cdot (N_1^{\,2} + 1)} = 0 \qquad BT - \frac{N_3 \cdot N_1^{\,2} \cdot (N_1 + N_2 + 1)}{(N_1^{\,2} + 1) \cdot (N_1 + N_2)} = 0$$

$$BJ - \frac{N_1 - N_1^{\,2} + N_2}{N_1 + N_2 + N_1^{\,2} \cdot N_2 - N_1^{\,2} \cdot N_3 + N_1^{\,3} - N_1 \cdot N_3 - N_1 \cdot N_2 \cdot N_3} = 0$$

$$GH - \frac{\begin{aligned}&\left(N_1 + N_2 + N_1^{\,2} \cdot N_2 - N_1^{\,2} \cdot N_3 + N_1^{\,3} - N_1 \cdot N_3 - N_1 \cdot N_2 \cdot N_3\right) \cdot \sqrt{2 \cdot N_1^{\,2} + 2 \cdot N_1 \cdot N_2 + N_2^{\,2}} \ \ldots \\ &+ (N_1 + N_2) \cdot \left(N_1 + N_2 - N_1^{\,2} \cdot N_2 + N_1^{\,2} \cdot N_3 - 2 \cdot N_1^{\,2} - N_1^{\,3} + N_1 \cdot N_3 + N_1 \cdot N_2 \cdot N_3\right)\end{aligned}}{2 \cdot (N_1 + N_2) \cdot \left(N_1 + N_2 + N_1^{\,2} \cdot N_2 - N_1^{\,2} \cdot N_3 + N_1^{\,3} - N_1 \cdot N_3 - N_1 \cdot N_2 \cdot N_3\right)} = 0$$

$$GK - \sqrt{GH \cdot (EH - GH)} = 0 \qquad R - \frac{GK - AF}{BJ} = 0$$

4RST8AB3R11



$N_1 = 1.15002$
$N_2 = 1.41153$
$N_3 = 0.78668$
$R = 0.94487$

Unit. $AB := 1$ **Given.** $N_1 := 1.15002$ $N_2 := 1.41153$ $N_3 := .78668$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

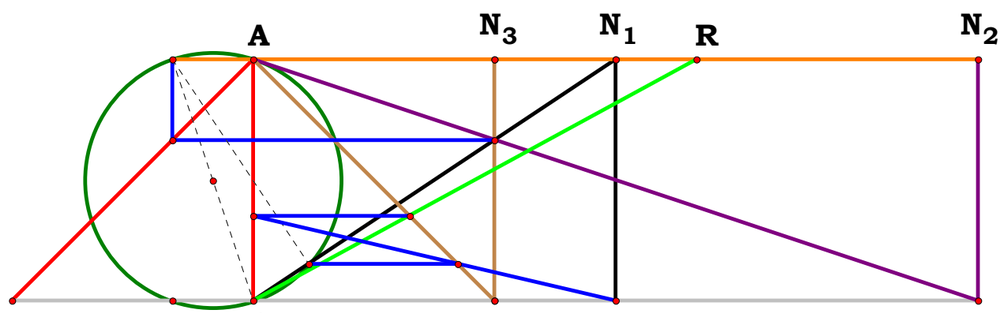
Descriptions.

$$AC := \frac{N_1}{N_1 + N_2} \qquad BN_1 := \sqrt{AB^2 + N_1^2} \qquad FN_1 := \frac{N_1 \cdot (N_1 + AC)}{BN_1}$$

$$BF := BN_1 - FN_1 \qquad BG := \frac{N_1 \cdot BF}{BN_1} \qquad FG := \frac{BG}{N_1}$$

$$BJ := N_3 \cdot (AB - FG) \qquad BE := \frac{FG \cdot N_1}{N_1 - BJ}$$

$$BH := N_3 \cdot (AB - BE) \qquad R := \frac{BH}{BE} \qquad R = 0.944894$$



Definitions.

$$R - \frac{N_1 \cdot N_3 \cdot (N_1 - N_3) \cdot (N_1 + N_2 + 1)}{N_1 - N_1^2 + N_2} = 0$$

$$N_1 - \frac{N_u}{A} = 0 \qquad N_2 - \frac{N_u}{B} = 0 \qquad N_3 - \frac{N_u}{C} = 0$$

$$R - \frac{N_u^2 \cdot (C - A) \cdot [A \cdot B + N_u \cdot (A + B)]}{A \cdot C^2 \cdot (A^2 + B \cdot A - B \cdot N_u)} = 0$$

$$N_1 - \frac{X}{o} = 0 \qquad N_2 - \frac{Y}{p} = 0 \qquad N_3 - \frac{Z}{q} = 0$$

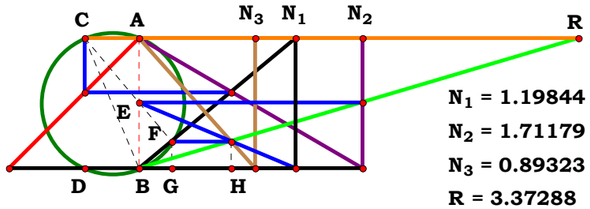
$$R - \frac{X \cdot Z \cdot (X \cdot q - Z \cdot o) \cdot (X \cdot p + Y \cdot o + o \cdot p)}{o \cdot q^2 \cdot (p \cdot X \cdot o - p \cdot X^2 + Y \cdot o^2)} = 0$$

B

$N_1 = 1.50000$
$N_2 = 3.00000$
$N_3 = 1.00000$
$R = 1.83333$

$$\frac{N_1 \cdot N_3 \cdot (N_1 - N_3) \cdot (N_1 + N_2 + 1)}{(N_1 - N_1^2) + N_2} - R = 0.00000$$

4RST8AB3R12



$N_1 = 1.19844$
$N_2 = 1.71179$
$N_3 = 0.89323$
$R = 3.37288$

Unit. $AB := 1$ **Given.** $N_1 := 1.19844$ $N_2 := 1.71179$ $N_3 := .89323$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

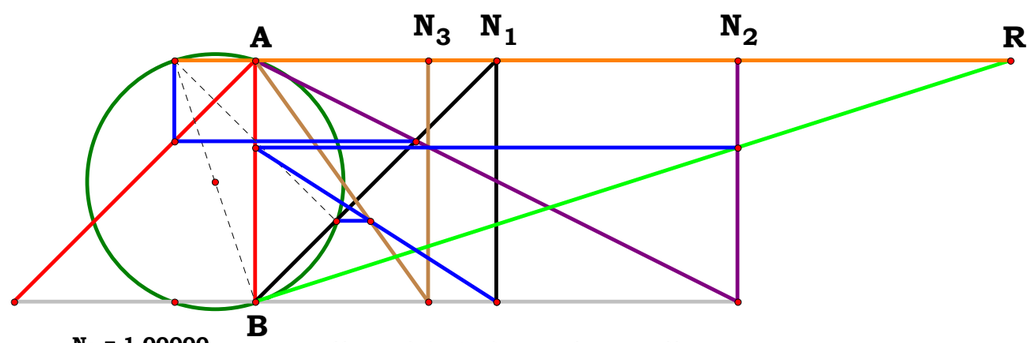
Descriptions.

$$AC := \frac{N_1}{N_1 + N_2} \qquad BN_1 := \sqrt{AB^2 + N_1{}^2}$$

$$FN_1 := \frac{N_1 \cdot (N_1 + AC)}{BN_1} \qquad BF := BN_1 - FN_1$$

$$BG := \frac{N_1 \cdot BF}{BN_1} \qquad FG := \frac{BG}{N_1} \qquad BH := N_3 \cdot (AB - FG)$$

$$BE := \frac{FG \cdot N_1}{N_1 - BH} \qquad R := \frac{N_2}{BE} \qquad R = 3.372825$$



$N_1 = 1.00000$
$N_2 = 2.00000$
$N_3 = 0.71764$
$R = 3.12945$

$$\frac{N_2 \cdot ((N_1+N_2) \cdot (N_1{}^2+1) - N_1 \cdot N_3 \cdot (N_1+N_2+1))}{(N_1 - N_1{}^2) + N_2} - R = 0.00000$$

Definitions.

$$R - \frac{N_2 \cdot \left[\left(N_1{}^2 + 1 \right) \cdot \left(N_1 + N_2 \right) - N_1 \cdot N_3 \cdot \left(N_1 + N_2 + 1 \right) \right]}{N_1 - N_1{}^2 + N_2} = 0$$

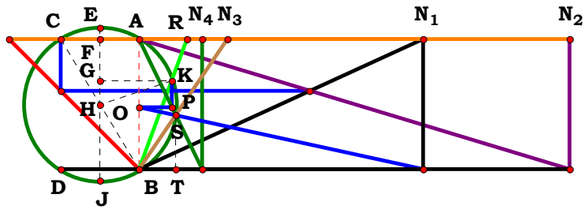
$$N_1 - \frac{N_u}{A} = 0 \qquad N_2 - \frac{N_u}{B} = 0 \qquad N_3 - \frac{N_u}{C} = 0$$

$$R - \frac{N_u \cdot A^2 \cdot C \cdot (A + B) - N_u{}^3 \cdot (A - C) \cdot (A + B) - A^2 \cdot B \cdot N_u{}^2}{A \cdot B \cdot C \cdot \left(A^2 + B \cdot A - B \cdot N_u \right)} = 0$$

$$N_1 - \frac{X}{o} = 0 \qquad N_2 - \frac{Y}{p} = 0 \qquad N_3 - \frac{Z}{q} = 0$$

$$R - \frac{Y \cdot q \cdot \left(X^2 + o^2 \right) \cdot (X \cdot p + Y \cdot o) - Z \cdot X \cdot Y \cdot o \cdot (X \cdot p + Y \cdot o + o \cdot p)}{q \cdot X \cdot o^2 \cdot p^2 - q \cdot X^2 \cdot o \cdot p^2 + Y \cdot q \cdot o^3 \cdot p} = 0$$

4RST8AB4R0



$N_1 = 2.17671$
$N_2 = 3.30026$
$N_3 = 0.68014$
$N_4 = 0.48406$
$R = 0.36955$

Unit. $AB := 1$ Given. $N_1 := 2.17671$ $N_2 := 3.30026$ $N_3 := .68014$

$N_4 := .48406$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$

$m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

$AC := \frac{N_2}{N_1 + N_2}$ $EJ := \sqrt{AB^2 + AC^2}$

$EF := \frac{EJ - AB}{2}$ $AF := \frac{AC}{2}$

$HK := \frac{EJ}{2}$ $ST := \frac{N_4}{N_4 + N_3}$

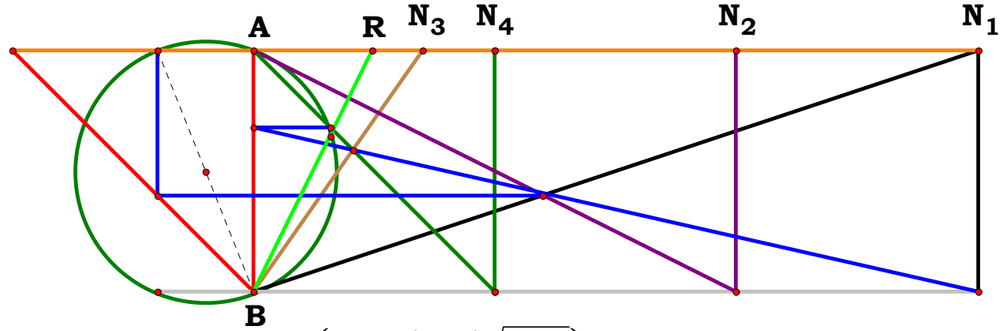
$BT := N_3 \cdot ST$ $TU := N_1 - BT$

$BO := \frac{ST \cdot N_1}{TU}$ $OP := N_4 - N_4 \cdot BO$

$GK := AF + OP$ $GH := \sqrt{HK^2 - GK^2}$

$EG := HK - GH$ $GJ := EJ - EG$

$R := \frac{OP}{GJ - EF}$ $R = 0.369547$



$N_1 = 3.00000$
$N_2 = 2.00000$
$N_3 = 0.70000$
$N_4 = 1.00000$
$R = 0.49209$

$$\frac{\left(2 \cdot N_3 \cdot N_4 \cdot (N_1 - N_4) \cdot \sqrt{N_1 + N_2}\right)}{\sqrt{\left(N_3^2 \cdot (N_1 - N_4)^2 \cdot ((N_1 + N_2) - 4 \cdot N_4 \cdot (N_2 + N_1 \cdot N_4 + N_2 \cdot N_4))\right) + (2 \cdot N_1 \cdot N_3 \cdot N_4 \cdot (N_1 - N_4) \cdot ((N_1 + N_2) - 2 \cdot N_2 \cdot N_4)) + \left(N_1^2 \cdot N_4^2 \cdot (N_1 + N_2)\right)} + \left(\sqrt{N_1 + N_2} \cdot ((N_1 \cdot N_3 + N_1 \cdot N_4) - N_3 \cdot N_4)\right)} - R = 0.00000$$

Definitions.

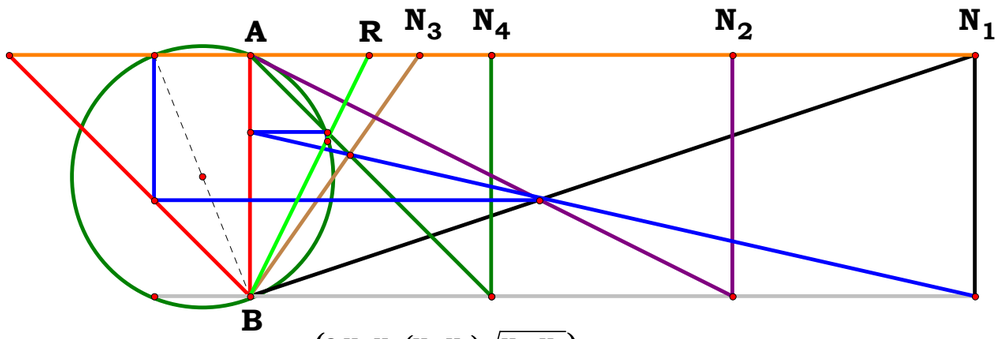
$$R - \frac{2 \cdot N_3 \cdot N_4 \cdot \sqrt{N_1 + N_2} \cdot (N_1 - N_4)}{\sqrt{N_3^2 \cdot (N_1 - N_4)^2 \cdot [N_1 + N_2 - 4 \cdot N_4 \cdot (N_2 + N_1 \cdot N_4 + N_2 \cdot N_4)] \ \ldots \\ + 2 \cdot N_1 \cdot N_3 \cdot N_4 \cdot (N_1 - N_4) \cdot (N_1 + N_2 - 2 \cdot N_2 \cdot N_4) + N_1^2 \cdot N_4^2 \cdot (N_1 + N_2)}} + \sqrt{N_1 + N_2} \cdot (N_1 \cdot N_3 + N_1 \cdot N_4 - N_3 \cdot N_4) = 0$$

$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{2 \cdot N_u \cdot \sqrt{N_u \cdot (A + B)} \cdot (A - D)}{\sqrt{A \cdot N_u + B \cdot N_u} \cdot D \cdot (A - C - D) - \sqrt{N_u \cdot \left[D^2 \cdot (A + B) \cdot (C - A + D)^2 - 4 \cdot N_u^2 \cdot (A + B) \cdot (A - D)^2 + 4 \cdot A \cdot D \cdot N_u \cdot (A - D) \cdot (C - A + D)\right]}} = 0$$

$$N_1 - \frac{W}{m} = 0 \quad N_2 - \frac{X}{n} = 0 \quad N_3 - \frac{Y}{o} = 0 \quad N_4 - \frac{Z}{p} = 0$$

$$R - \frac{2 \cdot Y \cdot Z \cdot \sqrt{W \cdot n + X \cdot m} \cdot (W \cdot p - Z \cdot m) \cdot \sqrt{m} \cdot \sqrt{n}}{\sqrt{\begin{aligned} &2 \cdot Y \cdot W \cdot Z \cdot o \cdot p \cdot (W \cdot p - Z \cdot m) \cdot (W \cdot n \cdot p - 2 \cdot X \cdot Z \cdot m + X \cdot m \cdot p) \ \ldots \\ &+ \ -Y^2 \cdot (W \cdot p - Z \cdot m)^2 \cdot \left(4 \cdot W \cdot Z^2 \cdot n + 4 \cdot X \cdot Z^2 \cdot m - W \cdot n \cdot p^2 - X \cdot m \cdot p^2 + 4 \cdot X \cdot Z \cdot m \cdot p\right) \ \ldots \\ &+ \ n \cdot W^3 \cdot Z^2 \cdot o^2 \cdot p^2 + X \cdot m \cdot W^2 \cdot Z^2 \cdot o^2 \cdot p^2 \end{aligned}} \cdot \sqrt{m \cdot n} + \sqrt{W \cdot n + X \cdot m} \cdot \sqrt{n} \cdot \sqrt{m} \cdot p \cdot (W \cdot Y \cdot p + W \cdot Z \cdot o - Y \cdot Z \cdot m)} = 0$$



$N_1 = 3.00000$

$N_2 = 2.00000$

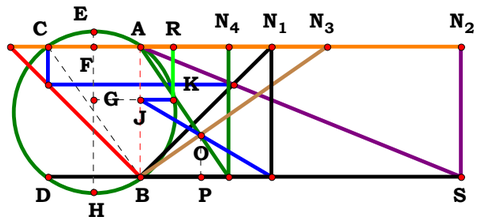
$N_3 = 0.70000$

$N_4 = 1.00000$

$R = 0.49209$

$$\frac{\left(2 \cdot N_3 \cdot N_4 \cdot (N_1 - N_4) \cdot \sqrt{N_1 + N_2}\right)}{\sqrt{\left(N_3^2 \cdot (N_1 - N_4)^2 \cdot ((N_1 + N_2) - 4 \cdot N_4 \cdot (N_2 + N_1 \cdot N_4 + N_2 \cdot N_4)\right)) + \left(2 \cdot N_1 \cdot N_3 \cdot N_4 \cdot (N_1 - N_4) \cdot ((N_1 + N_2) - 2 \cdot N_2 \cdot N_4)\right) + \left(N_1^2 \cdot N_4^2 \cdot (N_1 + N_2)\right)} + \left(\sqrt{N_1 + N_2} \cdot ((N_1 \cdot N_3 + N_1 \cdot N_4) - N_3 \cdot N_4)\right)} - R = 0.00000$$

4RST8AB4R1



$N_1 = 1.00473$
$N_2 = 2.45760$
$N_3 = 1.43563$
$N_4 = 0.67778$
$R = 0.25131$

Unit. $AB := 1$ Given. $N_1 := 1.00473$ $N_2 := 2.45760$ $N_3 := 1.43563$ $N_4 := .67778$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

$AC := \frac{N_2}{N_1 + N_2}$ $EH := \sqrt{AB^2 + AC^2}$

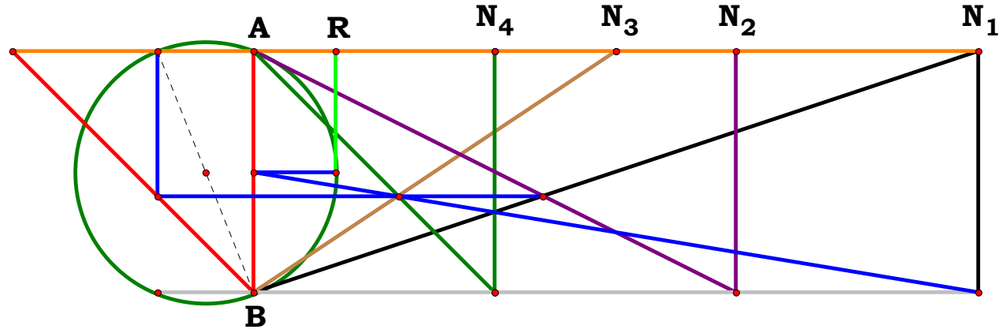
$AF := \frac{AC}{2}$ $EF := \frac{EH - AB}{2}$

$OP := \frac{N_4}{N_3 + N_4}$ $BP := N_3 \cdot OP$

$PS := N_1 - BP$ $BJ := \frac{OP \cdot N_1}{PS}$

$GH := BJ + EF$ $GK := \sqrt{GH \cdot (EH - GH)}$

$R := GK - AF$ $R = 0.251311$



$N_1 = 3.00000$
$N_2 = 2.00000$
$N_3 = 1.50000$
$N_4 = 1.00000$
$R = 0.33852$

$$\frac{\sqrt{(N_2 \cdot N_3 \cdot (N_1 - N_4))^2 + (2 \cdot N_1 \cdot N_3 \cdot N_4 \cdot (2 \cdot N_1^2 + 4 \cdot N_1 \cdot N_2 + 3 \cdot N_2^2) \cdot (N_1 - N_4)) + (N_1 \cdot N_2 \cdot N_4)^2} - (N_2 \cdot ((N_1 \cdot N_3 + N_1 \cdot N_4) - N_3 \cdot N_4))}{(2 \cdot (N_1 + N_2) \cdot ((N_1 \cdot N_3 + N_1 \cdot N_4) - N_3 \cdot N_4))} - R = 0.00000$$

Definitions.

$$R - \frac{\sqrt{N_2^2 \cdot N_3^2 \cdot (N_1 - N_4)^2 + 2 \cdot N_1 \cdot N_3 \cdot N_4 \cdot (2 \cdot N_1^2 + 4 \cdot N_1 \cdot N_2 + 3 \cdot N_2^2) \cdot (N_1 - N_4) + N_1^2 \cdot N_2^2 \cdot N_4^2} - N_2 \cdot (N_1 \cdot N_3 + N_1 \cdot N_4 - N_3 \cdot N_4)}{2 \cdot (N_1 + N_2) \cdot (N_1 \cdot N_3 + N_1 \cdot N_4 - N_3 \cdot N_4)} = 0$$

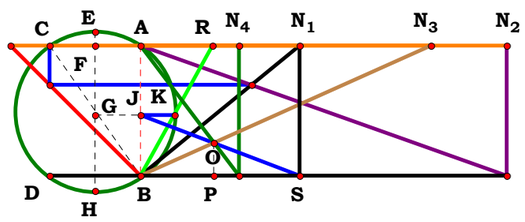
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{A \cdot (C - A + D) - \sqrt{A^2 \cdot C^2 - 2 \cdot C \cdot (3 \cdot A^2 + 4 \cdot A \cdot B + 2 \cdot B^2) \cdot (A - D) + A^2 \cdot (A - D)^2}}{2 \cdot (A - C - D) \cdot (A + B)} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{\sqrt{Y^2 \cdot X^2 \cdot m^2 \cdot (W \cdot p - Z \cdot m)^2 + 2 \cdot Y \cdot W \cdot Z \cdot o \cdot (2 \cdot W^2 \cdot n^2 + 4 \cdot W \cdot X \cdot m \cdot n + 3 \cdot X^2 \cdot m^2) \cdot (W \cdot p - Z \cdot m) + W^2 \cdot X^2 \cdot Z^2 \cdot m^2 \cdot o^2} - X \cdot m \cdot (W \cdot Y \cdot p + W \cdot Z \cdot o - Y \cdot Z \cdot m)}{(2 \cdot W \cdot n + 2 \cdot X \cdot m) \cdot (W \cdot Y \cdot p + W \cdot Z \cdot o - Y \cdot Z \cdot m)} = 0$$

4RST8AB4R2



$N_1 = 1.21782$
$N_2 = 2.80628$
$N_3 = 2.22987$
$N_4 = 0.75526$
$R = 0.55203$

Unit. $AB := 1$ Given. $N_1 := 1.21782$ $N_2 := 2.80628$ $N_3 := 2.22987$ $N_4 := .75526$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

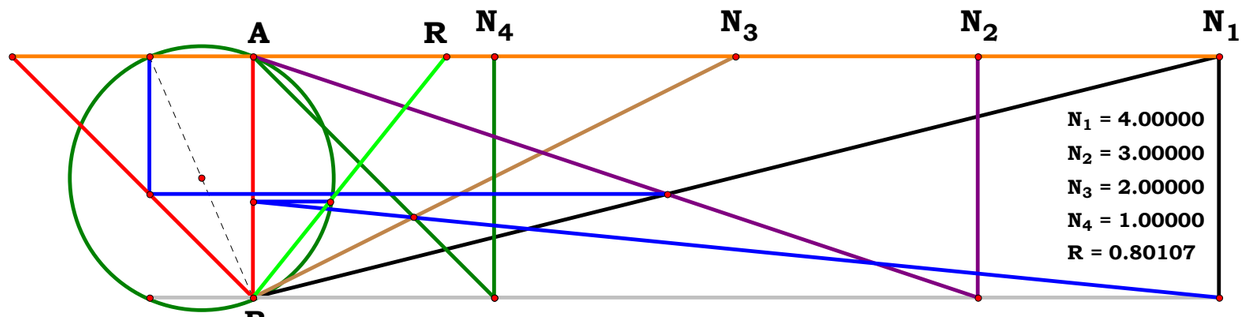
$AC := \frac{N_2}{N_1 + N_2}$ $EH := \sqrt{AB^2 + AC^2}$

$AF := \frac{AC}{2}$ $EF := \frac{EH - AB}{2}$

$OP := \frac{N_4}{N_3 + N_4}$ $BP := N_3 \cdot OP$

$PS := N_1 - BP$ $BJ := \frac{OP \cdot N_1}{PS}$

$GH := BJ + EF$ $EG := EH - GH$



$$\frac{\sqrt{(N_2 \cdot N_3 \cdot (N_1 - N_4))^2 + (2 \cdot N_1 \cdot N_3 \cdot N_4 \cdot (2 \cdot N_1^2 + 4 \cdot N_1 \cdot N_2 + 3 \cdot N_2^2) \cdot (N_1 - N_4)) + (N_1 \cdot N_2 \cdot N_4)^2} - N_2 \cdot ((N_1 \cdot N_3 + N_1 \cdot N_4) - N_3 \cdot N_4)}{(2 \cdot N_1 \cdot N_4 \cdot (N_1 + N_2))} - R = 0.00000$$

$GK := \sqrt{EG \cdot GH}$ $R := \frac{GK - AF}{BJ}$ $R = 0.552031$

Definitions.

$$R - \frac{\sqrt{N_2^2 \cdot N_3^2 \cdot (N_1 - N_4)^2 + 2 \cdot N_1 \cdot N_3 \cdot N_4 \cdot \left(2 \cdot N_1^2 + 4 \cdot N_1 \cdot N_2 + 3 \cdot N_2^2\right) \cdot (N_1 - N_4) + N_1^2 \cdot N_2^2 \cdot N_4^2} - N_2 \cdot (N_1 \cdot N_3 + N_1 \cdot N_4 - N_3 \cdot N_4)}{2 \cdot (N_1 + N_2) \cdot N_1 \cdot N_4} = 0$$

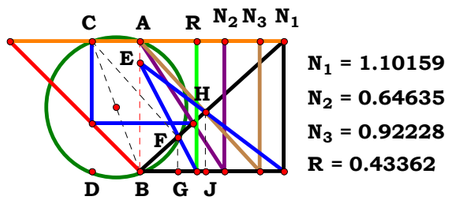
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{\sqrt{A^2 \cdot C^2 + A^2 \cdot (A - D)^2 - 2 \cdot C \cdot (A - D) \cdot \left(3 \cdot A^2 + 4 \cdot A \cdot B + 2 \cdot B^2\right)} + A \cdot (A - C - D)}{2 \cdot C \cdot (A + B)} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{\sqrt{Y^2 \cdot X^2 \cdot m^2 \cdot (W \cdot p - Z \cdot m)^2 + 2 \cdot Y \cdot W \cdot Z \cdot o \cdot \left(2 \cdot W^2 \cdot n^2 + 4 \cdot W \cdot X \cdot m \cdot n + 3 \cdot X^2 \cdot m^2\right) \cdot (W \cdot p - Z \cdot m) + W^2 \cdot X^2 \cdot Z^2 \cdot m^2 \cdot o^2} - X \cdot m \cdot (W \cdot Y \cdot p + W \cdot Z \cdot o - Y \cdot Z \cdot m)}{2 \cdot W \cdot Z \cdot o \cdot (W \cdot n + X \cdot m)} = 0$$

4RST8AB4R4



Unit. $AB := 1$ Given. $N_1 := 1.10159$ $N_2 := .64635$ $N_3 := .92228$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

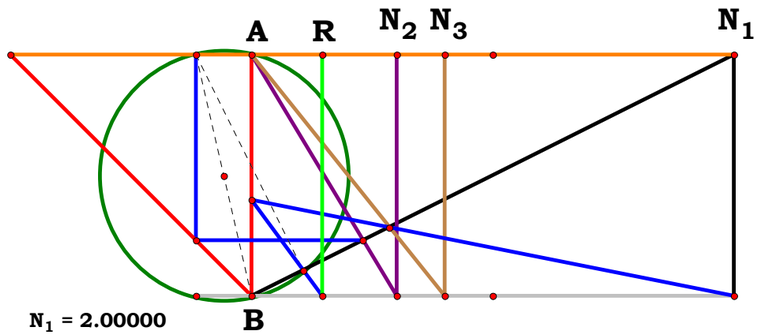
$$AC := \frac{N_2}{N_1 + N_2} \qquad HJ := \frac{N_3}{N_1 + N_3}$$

$$BJ := N_1 \cdot HJ \qquad BN_1 := \sqrt{AB^2 + N_1{}^2}$$

$$FN_1 := \frac{N_1 \cdot (N_1 + AC)}{BN_1} \qquad BF := BN_1 - FN_1$$

$$BG := \frac{N_1 \cdot BF}{BN_1} \qquad FG := \frac{BG}{N_1} \qquad BE := \frac{HJ \cdot N_1}{N_1 - BJ}$$

$$R := \frac{BE \cdot BG}{BE - FG} \qquad R = 0.433618$$



$N_1 = 2.00000$
$N_2 = 0.60000$
$N_3 = 0.80000$

$$\frac{N_1 \cdot N_3 \cdot ((N_1 + N_2) - (N_1 \cdot N_2))}{N_3 \cdot (N_1 + N_2) \cdot (N_1{}^2 + 1) - N_1 \cdot ((N_1 + N_2) - (N_1 \cdot N_2))} - R = 0.00000$$

$R = 0.29474$

Definitions.

$$R - \frac{N_1 \cdot N_3 \cdot (N_1 + N_2 - N_1 \cdot N_2)}{N_3 \cdot (N_1{}^2 + 1) \cdot (N_1 + N_2) - N_1 \cdot (N_1 + N_2 - N_1 \cdot N_2)} = 0$$

$$N_1 - \frac{N_u}{A} = 0 \qquad N_2 - \frac{N_u}{B} = 0 \qquad N_3 - \frac{N_u}{C} = 0$$

$$R - \frac{A \cdot N_u \cdot (A + B - N_u)}{(A^2 + N_u{}^2) \cdot (A + B) - C \cdot A \cdot (A + B - N_u)} = 0$$

$$N_1 - \frac{X}{o} = 0 \qquad N_2 - \frac{Y}{p} = 0 \qquad N_3 - \frac{Z}{q} = 0$$

$$R - \frac{X \cdot Z \cdot o \cdot (X \cdot p - X \cdot Y + Y \cdot o)}{Y \cdot o \cdot (X^2 \cdot Z + Z \cdot o^2 + X^2 \cdot q - X \cdot o \cdot q) + X \cdot p \cdot (Z \cdot X^2 - q \cdot X \cdot o + Z \cdot o^2)} = 0$$

4RST8AB4R5

Unit.

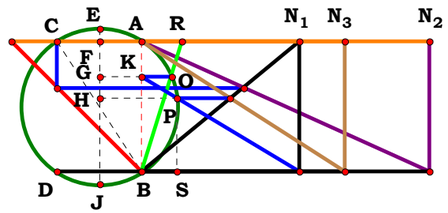
$AB := 1$

Given.

$N_1 := 1.20813$

$N_2 := 2.20577$

$N_3 := 1.56155$



$N_1 = 1.20813$

$N_2 = 2.20577$

$N_3 = 1.56155$

$R = 0.31444$

Descriptions.

$AC := \frac{N_2}{N_1 + N_2}$ $EJ := \sqrt{AB^2 + AC^2}$

$AF := \frac{AC}{2}$ $EF := \frac{EJ - AB}{2}$

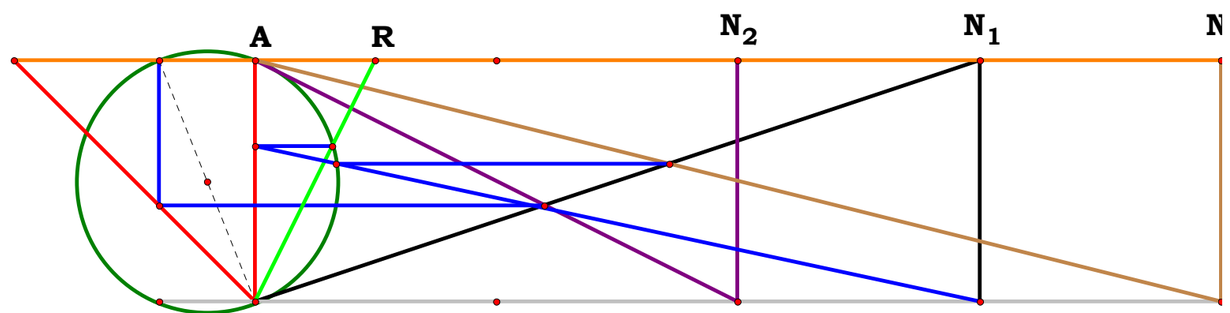
$PS := \frac{N_3}{N_1 + N_3}$ $HJ := PS + EF$

$HP := \sqrt{HJ \cdot (EJ - HJ)}$ $BS := HP - AF$

$BK := \frac{PS \cdot N_1}{N_1 - BS}$ $GJ := BK + EF$

$GO := \sqrt{GJ \cdot (EJ - GJ)}$ $KO := GO - AF$

$R := \frac{KO}{BK}$ $R = 0.314439$



$N_1 = 3.00000$ $AB = 1.00000$ $EF = 0.03852$ $BS = 0.33376$ $KO = 0.31919$

$N_2 = 2.00000$ $AC = 0.40000$ $PS = 0.57143$ $BK = 0.64296$ $R - \frac{KO}{BK} = 0.00000$

$N_3 = 4.00000$ $EJ = 1.07703$ $HJ = 0.60995$ $GJ = 0.68148$

$R = 0.49645$ $AF = 0.20000$ $HP = 0.53376$ $GO = 0.51919$

Definitions.

$A := \sqrt{AC^2 \cdot (N_1 + N_3)^2 + 4 \cdot N_1 \cdot N_3}$ $B := \sqrt{(N_1 + N_3)^2}$ $C := \sqrt{(N_1 + N_3)^2 \cdot [A - B \cdot (AC + 2 \cdot N_1)]^2}$

$D := \sqrt{AC^2 \cdot (N_1 + N_3)^2 \cdot (A - AC \cdot B - 2 \cdot B \cdot N_1)^2 - 8 \cdot B \cdot N_1 \cdot N_3 \cdot [(N_1 + N_3) \cdot (A - AC \cdot B) - 2 \cdot B \cdot N_1^2]}$

$R - \frac{(AC \cdot C - D) \cdot (N_1 + N_3) \cdot (A - AC \cdot B - 2 \cdot B \cdot N_1)}{4 \cdot B \cdot C \cdot N_1 \cdot N_3} = 0$

$$AC - \frac{N_2}{N_1 + N_2} = 0 \qquad EJ - \frac{\sqrt{N_1^2 + 2 \cdot N_1 \cdot N_2 + 2 \cdot N_2^2}}{(N_1 + N_2)} = 0 \qquad AF - \frac{N_2}{2 \cdot (N_1 + N_2)} = 0$$

$$EF - \frac{\sqrt{N_1^2 + 2 \cdot N_1 \cdot N_2 + 2 \cdot N_2^2} - N_2 - N_1}{2 \cdot (N_1 + N_2)} = 0 \qquad PS - \frac{N_3}{N_1 + N_3} = 0$$

$$HJ - \frac{\sqrt{N_1^2 + 2 \cdot N_1 \cdot N_2 + 2 \cdot N_2^2} \cdot (N_1 + N_3) - (N_1 - N_3) \cdot (N_1 + N_2)}{2 \cdot (N_1 + N_2) \cdot (N_1 + N_3)} = 0$$

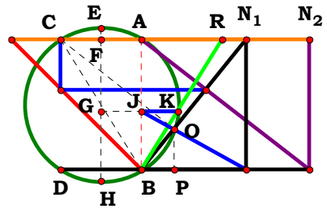
$$HP - \sqrt{HJ \cdot (EJ - HJ)} = 0 \qquad BS - (HP - AF) = 0$$

$$BK - \frac{PS \cdot N_1}{N_1 - BS} = 0 \qquad GJ - (BK + EF) = 0$$

$$GO - \sqrt{GJ \cdot (EJ - GJ)} = 0 \qquad KO - (GO - AF) = 0$$

$$R - \frac{KO}{BK} = 0$$

4RST8AB4R6



$N_1 = 0.80133$
$N_2 = 1.28562$
$R = 0.62073$

Unit. $AB := 1$ **Given.** $N_1 := .80133$ $N_2 := 1.28562$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $Y := 20$ $Z := 19$ $p := \frac{Y}{N_1}$ $q := \frac{Z}{N_2}$

Descriptions.

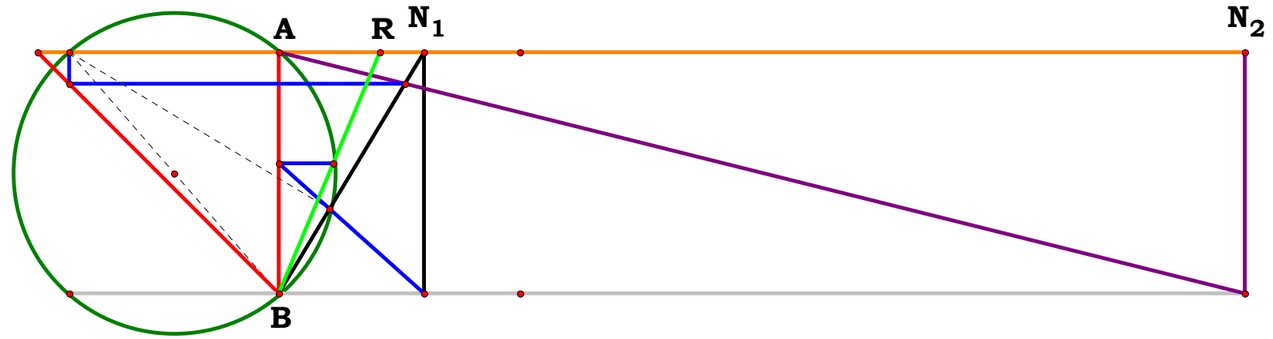
$AC := \frac{N_2}{N_1 + N_2}$ $EH := \sqrt{AB^2 + AC^2}$ $AF := \frac{AC}{2}$ $EF := \frac{EH - AB}{2}$

$BN_1 := \sqrt{AB^2 + N_1^2}$ $ON_1 := \frac{N_1 \cdot (N_1 + AC)}{BN_1}$ $BO := BN_1 - ON_1$

$BP := \frac{N_1 \cdot BO}{BN_1}$ $OP := \frac{BP}{N_1}$ $BJ := \frac{OP \cdot N_1}{N_1 - BP}$

$GH := BJ + EF$ $GK := \sqrt{GH \cdot (EH - GH)}$

$JK := GK - AF$ $R := \frac{JK}{BJ}$ $R = 0.620735$



$N_1 = 0.60000$
$N_2 = 4.00000$
$R = 0.41750$

Definitions.

$$\frac{(N_1 \cdot N_2 \cdot (N_1^2 + N_1 \cdot N_2 + N_2)) - \sqrt{(((N_1^6 \cdot (N_2 - 2)^2) + (2 \cdot N_1^3 \cdot N_2 \cdot (N_2 - 4) \cdot ((N_1^2 \cdot N_2 - 2 \cdot N_1^2 - N_2^2 - 4 \cdot N_2) + 2)) + (N_1^4 \cdot ((N_2^2 - 8 \cdot N_2) + 2) \cdot (N_2^2 - 2 \cdot N_2 - 2))) - (3 \cdot N_1^2 \cdot N_2^2 \cdot ((N_2^2 - 12 \cdot N_2) + 8))) + (4 \cdot N_1 \cdot N_2^3 \cdot (3 \cdot N_2 - 4) - 4 \cdot N_2^4)}{(2 \cdot (N_1 + N_2) \cdot (N_1 \cdot N_2 - (N_1 + N_2)))} - R = 0.00000$$

$$R - \frac{N_1 \cdot N_2 \cdot \left(N_1^2 + N_1 \cdot N_2 + N_2\right) - \sqrt{\begin{aligned} &N_1^6 \cdot \left(N_2 - 2\right)^2 + 2 \cdot N_1^3 \cdot N_2 \cdot \left(N_2 - 4\right) \cdot \left(N_1^2 \cdot N_2 - 2 \cdot N_1^2 - N_2^2 - 4 \cdot N_2 + 2\right) \ \ldots \\ &+ N_1^4 \cdot \left(N_2^2 - 8 \cdot N_2 + 2\right) \cdot \left(N_2^2 - 2 \cdot N_2 - 2\right) - 3 \cdot N_1^2 \cdot N_2^2 \cdot \left(N_2^2 - 12 \cdot N_2 + 8\right) \ \ldots \\ &+ 4 \cdot N_1 \cdot N_2^3 \cdot \left(3 \cdot N_2 - 4\right) - 4 \cdot N_2^4 \end{aligned}}}{2 \cdot \left(N_1 + N_2\right) \cdot \left(N_1 \cdot N_2 - N_2 - N_1\right)} = 0$$

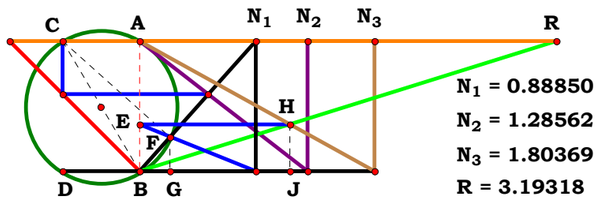
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$

$$R - \frac{\sqrt{N_u^4 \cdot (A + B)^2 - 2 \cdot N_u^3 \cdot (A + B) \cdot \left(A^2 + 4 \cdot A \cdot B + 2 \cdot B^2\right) + \left[\left(3 \cdot A^2 + 6 \cdot A \cdot B + 2 \cdot B^2\right) \cdot \left(2 \cdot A \cdot B - A^2 + 2 \cdot B^2\right)\right] \cdot N_u^2 + 12 \cdot N_u \cdot A^2 \cdot (A + B)^3 - 4 \cdot A^2 \cdot (A + B)^4} - N_u \cdot \left(A^2 + N_u \cdot A + B \cdot N_u\right)}{2 \cdot A \cdot (A + B) \cdot \left(A + B - N_u\right)} = 0$$

$$N_1 - \frac{Y}{p} = 0 \qquad N_2 - \frac{Z}{q} = 0$$

$$R - \frac{Y \cdot Z \cdot \left(q \cdot Y^2 + Z \cdot Y \cdot p + Z \cdot p^2\right) - \sqrt{\begin{array}{l} Y^6 \cdot q^2 \cdot (Z - 2 \cdot q)^2 + 2 \cdot Y^5 \cdot Z \cdot p \cdot q \cdot (Z - 4 \cdot q) \cdot (Z - 2 \cdot q) + Y^4 \cdot p^2 \cdot \left(Z^2 - 2 \cdot Z \cdot q - 2 \cdot q^2\right) \cdot \left(Z^2 - 8 \cdot Z \cdot q + 2 \cdot q^2\right) \ \ldots \\ + \ -2 \cdot Y^3 \cdot Z \cdot p^3 \cdot (Z - 4 \cdot q) \cdot \left(Z^2 + 4 \cdot Z \cdot q - 2 \cdot q^2\right) - 3 \cdot Y^2 \cdot Z^2 \cdot p^4 \cdot \left(Z^2 - 12 \cdot Z \cdot q + 8 \cdot q^2\right) + 4 \cdot Z^3 \cdot p^5 \cdot (3 \cdot Y \cdot Z - 4 \cdot Y \cdot q - Z \cdot p) \end{array}}}{2 \cdot p \cdot (Y \cdot q + Z \cdot p) \cdot (Y \cdot Z - Y \cdot q - Z \cdot p)} = 0$$

4RST8AB4R7



$N_1 = 0.88850$

$N_2 = 1.28562$

$N_3 = 1.80369$

$R = 3.19318$

Unit. $AB := 1$ **Given.** $N_1 := .88850$ $N_2 := 1.28562$ $N_3 := 1.80369$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

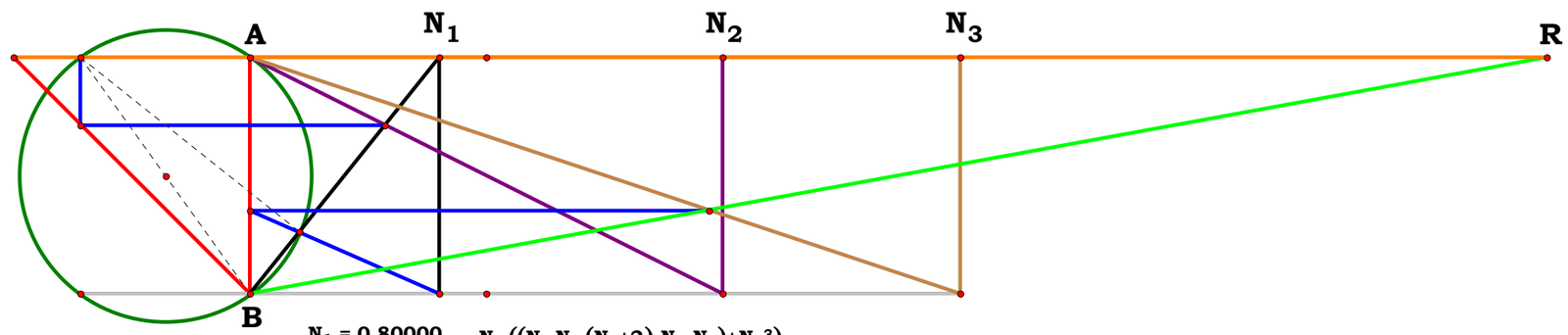
$$AC := \frac{N_2}{N_1 + N_2} \qquad BN_1 := \sqrt{AB^2 + N_1^2}$$

$$FN_1 := \frac{N_1 \cdot (N_1 + AC)}{BN_1} \qquad BF := BN_1 - FN_1$$

$$BG := \frac{N_1 \cdot BF}{BN_1} \qquad FG := \frac{BG}{N_1}$$

$$BE := \frac{FG \cdot N_1}{N_1 - BG} \qquad BJ := N_3 \cdot (AB - BE)$$

$$R := \frac{BJ}{BE} \qquad R = 3.193193$$



$N_1 = 0.80000$

$N_2 = 2.00000$

$N_3 = 3.00000$

$R = 5.48000$

$$\frac{N_3 \cdot ((N_1 \cdot N_2 \cdot (N_1 + 2) - N_2 - N_1) + N_1^3)}{(N_1 + N_2) - N_1 \cdot N_2} - R = 0.00000$$

Definitions.

$$R - \frac{N_3 \cdot \left[N_1 \cdot N_2 \cdot (N_1 + 2) - N_2 - N_1 + N_1^3\right]}{N_1 + N_2 - N_1 \cdot N_2} = 0$$

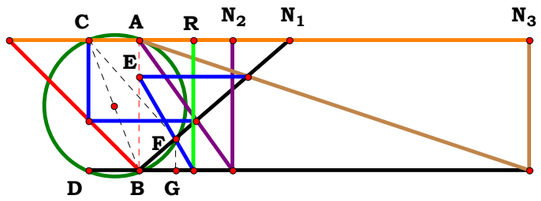
$$N_1 - \frac{N_u}{A} = 0 \qquad N_2 - \frac{N_u}{B} = 0 \qquad N_3 - \frac{N_u}{C} = 0$$

$$R - \frac{N_u^3 \cdot (A + B) - A^3 \cdot N_u - A^2 \cdot N_u \cdot (B - 2 \cdot N_u)}{A^2 \cdot C \cdot (A + B - N_u)} = 0$$

$$N_1 - \frac{X}{o} = 0 \qquad N_2 - \frac{Y}{p} = 0 \qquad N_3 - \frac{Z}{q} = 0$$

$$R - \frac{X^2 \cdot Z \cdot (X \cdot p + Y \cdot o) + X \cdot Z \cdot o^2 \cdot (2 \cdot Y - p) - Y \cdot Z \cdot o^3}{o^2 \cdot q \cdot (X \cdot p - X \cdot Y + Y \cdot o)} = 0$$

4RST8AB4R8



$N_1 = 1.15002$
$N_2 = 0.71415$
$N_3 = 2.99504$
R = 0.41553

Unit. $AB := 1$ Given. $N_1 := 1.15002$ $N_2 := .71415$ $N_3 := 2.99504$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

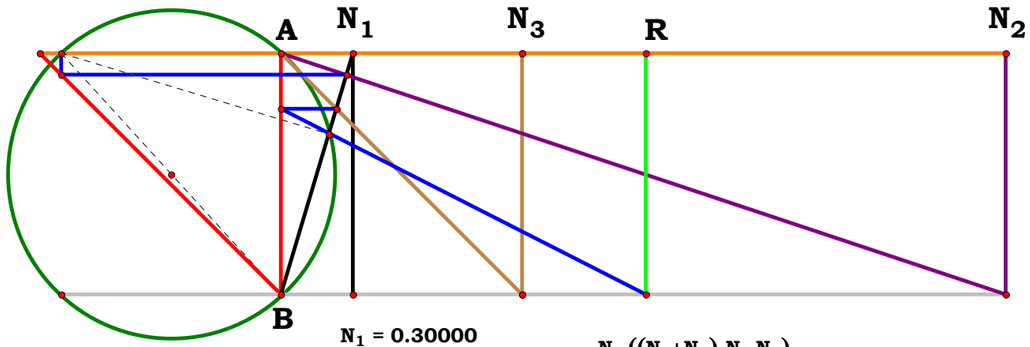
Descriptions.

$$AC := \frac{N_2}{N_1 + N_2} \qquad BE := \frac{N_3}{N_1 + N_3}$$

$$BN_1 := \sqrt{AB^2 + N_1^2} \qquad FN_1 := \frac{N_1 \cdot (N_1 + AC)}{BN_1}$$

$$BF := BN_1 - FN_1 \qquad BG := \frac{N_1 \cdot BF}{BN_1}$$

$$FG := \frac{BG}{N_1} \qquad R := \frac{BG \cdot BE}{BE - FG} \qquad R = 0.415528$$



$N_1 = 0.30000$
$N_2 = 3.00000$
$N_3 = 1.00000$
R = 1.50943

$$\frac{N_3 \cdot ((N_1 + N_2) - N_1 \cdot N_2)}{(N_3 \cdot (N_1^2 + N_1 \cdot N_2 + N_2) + N_1 \cdot N_2) - N_1 - N_2} - R = 0.00000$$

Definitions.

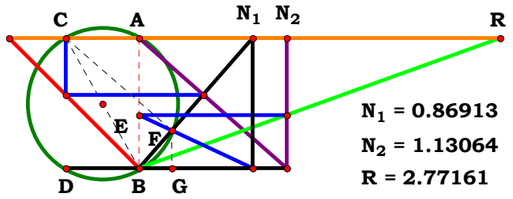
$$R - \frac{N_3 \cdot (N_1 + N_2 - N_1 \cdot N_2)}{N_3 \cdot (N_1^2 + N_1 \cdot N_2 + N_2) + N_1 \cdot N_2 - N_2 - N_1} = 0$$

$$N_1 - \frac{N_u}{A} = 0 \qquad N_2 - \frac{N_u}{B} = 0 \qquad N_3 - \frac{N_u}{C} = 0$$

$$R - \frac{A \cdot N_u \cdot (A + B - N_u)}{N_u^2 \cdot (A + B) + N_u \cdot A \cdot (A + C) - A \cdot C \cdot (A + B)} = 0$$

$$N_1 - \frac{X}{o} = 0 \qquad N_2 - \frac{Y}{p} = 0 \qquad N_3 - \frac{Z}{q} = 0$$

$$R - \frac{Z \cdot o \cdot (X \cdot p - X \cdot Y + Y \cdot o)}{Y \cdot o \cdot (X \cdot Z + X \cdot q + Z \cdot o - o \cdot q) + X \cdot p \cdot (X \cdot Z - o \cdot q)} = 0$$



$N_1 = 0.86913$
$N_2 = 1.13064$
$R = 2.77161$

Unit. $AB := 1$ **Given.** $N_1 := .86913$ $N_2 := 1.13064$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $Y := 20$ $Z := 19$ $p := \frac{Y}{N_1}$ $q := \frac{Z}{N_2}$

4RST8AB4R9

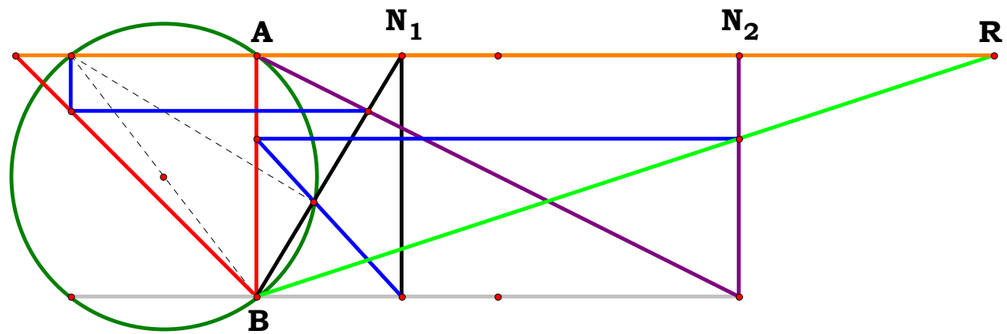
Descriptions.

$AC := \frac{N_2}{N_1 + N_2}$ $BN_1 := \sqrt{AB^2 + N_1^2}$

$FN_1 := \frac{N_1 \cdot (N_1 + AC)}{BN_1}$ $BF := BN_1 - FN_1$

$BG := \frac{N_1 \cdot BF}{BN_1}$ $FG := \frac{BG}{N_1}$

$BE := \frac{FG \cdot N_1}{N_1 - BG}$ $R := \frac{N_2}{BE}$ $R = 2.771609$



$N_1 = 0.60000$
$N_2 = 2.00000$
$R = 3.05143$

$\frac{N_1 \cdot N_2 \cdot (N_1^2 + N_1 \cdot N_2 + N_2)}{(N_1 + N_2) - N_1 \cdot N_2} - R = 0.00000$

Definitions.

$R - \frac{N_1 \cdot N_2 \cdot (N_1^2 + N_1 \cdot N_2 + N_2)}{N_1 + N_2 - N_1 \cdot N_2} = 0$

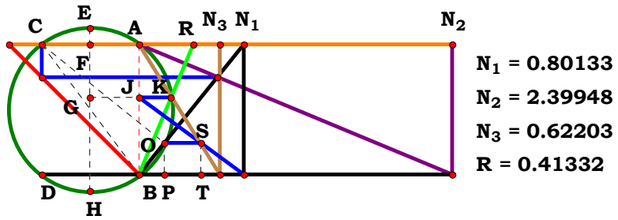
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$

$R - \frac{N_u^2 \cdot [A^2 + N_u \cdot (A + B)]}{A^2 \cdot B \cdot (A + B - N_u)} = 0$

$N_1 - \frac{Y}{p} = 0$ $N_2 - \frac{Z}{q} = 0$

$R - \frac{Y \cdot Z \cdot (q \cdot Y^2 + Z \cdot Y \cdot p + Z \cdot p^2)}{p^2 \cdot q \cdot (Y \cdot q - Y \cdot Z + Z \cdot p)} = 0$

4RST8AB4R10



$N_1 = 0.80133$
$N_2 = 2.39948$
$N_3 = 0.62203$
$R = 0.41332$

Unit. $AB := 1$ **Given.** $N_1 := .80133$ $N_2 := 2.39948$ $N_3 := .62203$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

$AC := \frac{N_2}{N_1 + N_2}$ $EH := \sqrt{AB^2 + AC^2}$

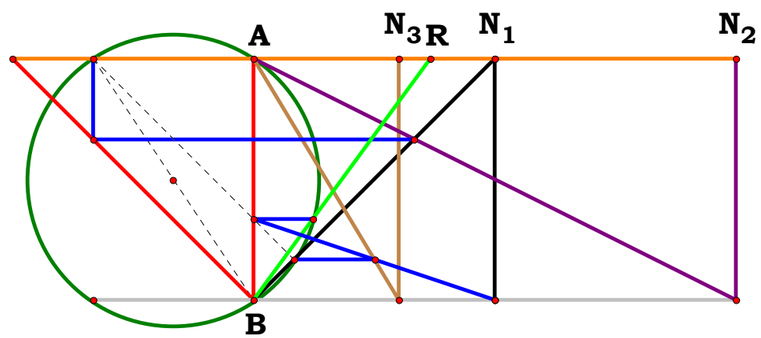
$AF := \frac{AC}{2}$ $EF := \frac{EH - AB}{2}$

$BN_1 := \sqrt{AB^2 + N_1^2}$ $ON_1 := \frac{N_1 \cdot (N_1 + AC)}{BN_1}$

$BO := BN_1 - ON_1$ $BP := \frac{N_1 \cdot BO}{BN_1}$ $OP := \frac{BP}{N_1}$

$BT := N_3 \cdot (AB - OP)$ $BJ := \frac{OP \cdot N_1}{N_1 - BT}$ $GH := BJ + EF$

$GK := \sqrt{GH \cdot (EH - GH)}$ $R := \frac{GK - AF}{BJ}$ $R = 0.413318$



$N_1 = 1.00000$
$N_2 = 2.00000$
$N_3 = 0.60000$
$R = 0.73205$

$$\frac{\sqrt{((N_2^2 \cdot N_3^2 \cdot (N_1^2 + N_1 \cdot N_2 + N_2)^2) + ((N_1 \cdot N_2 \cdot (N_1 - 2) - N_2 - 2 \cdot N_1^2)^2 \cdot (N_1 + N_2)^2)) - (2 \cdot N_3 \cdot (N_1^2 + N_1 \cdot N_2 + N_2) \cdot (N_1 + N_2) \cdot (N_1 \cdot N_2 \cdot (N_1 - 2) \cdot (N_2 - 2) + 2 \cdot N_1^2 + 3 \cdot N_2^2))} - (N_2 \cdot ((((N_1 + N_2 + N_1^2 \cdot N_2) - N_1^2 \cdot N_3) + N_1^3) - N_2 \cdot N_3 - N_1 \cdot N_2 \cdot N_3))}{2 \cdot (N_1 + N_2) \cdot ((N_1 + N_2) - N_1 \cdot N_2)} - R = 0.00000$$

Definitions.

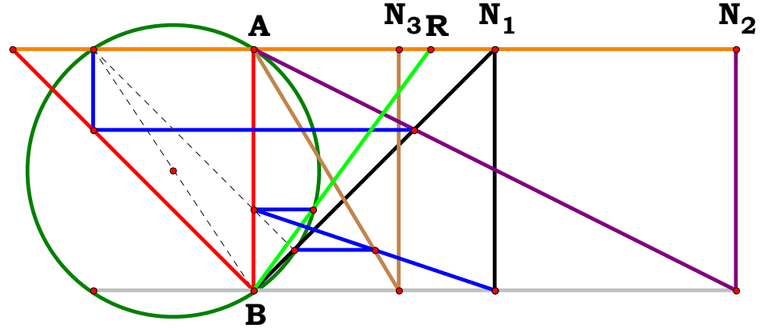
$$R - \frac{\sqrt{\begin{matrix} N_2^2 \cdot N_3^2 \cdot \left(N_1^2 + N_1 \cdot N_2 + N_2\right)^2 + \left[N_1 \cdot N_2 \cdot \left(N_1 - 2\right) - N_2 - 2 \cdot N_1^2\right]^2 \cdot \left(N_1 + N_2\right)^2 \ \ldots \\ + \ -2 \cdot N_3 \cdot \left(N_1^2 + N_1 \cdot N_2 + N_2\right) \cdot \left(N_1 + N_2\right) \cdot \left[N_1 \cdot N_2 \cdot \left(N_2 - 2\right) \cdot \left(N_1 - 2\right) + 2 \cdot N_1^2 + 3 \cdot N_2^2\right] \end{matrix}} - N_2 \cdot \left(N_1 + N_2 + N_1^2 \cdot N_2 - N_1^2 \cdot N_3 + N_1^3 - N_2 \cdot N_3 - N_1 \cdot N_2 \cdot N_3\right)}{2 \cdot \left(N_1 + N_2\right) \cdot \left(N_1 + N_2 - N_1 \cdot N_2\right)} = 0$$

$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$

$$R - \frac{\sqrt{\begin{matrix} C^2 \cdot (A + B)^2 \cdot \left[A^2 + N_u \cdot \left(2 \cdot A + 2 \cdot B - N_u\right)\right]^2 + A^2 \cdot N_u^2 \cdot \left(A^2 + N_u \cdot A + B \cdot N_u\right)^2 \ \ldots \\ + \ -2 \cdot C \cdot A \cdot N_u \cdot (A + B) \cdot \left[A^2 + N_u \cdot (A + B)\right] \cdot \left(3 \cdot A^2 + 4 \cdot A \cdot B - 2 \cdot A \cdot N_u + 2 \cdot B^2 - 2 \cdot B \cdot N_u + N_u^2\right) \end{matrix}} + \left[N_u^2 \cdot (A - C) \cdot (A + B) + A^3 \cdot N_u - \left[A^2 \cdot C \cdot (A + B)\right]\right]}{2 \cdot A \cdot C \cdot (A + B) \cdot \left(A + B - N_u\right)} = 0$$

$$N_1 - \frac{X}{o} = 0 \qquad N_2 - \frac{Y}{p} = 0 \qquad N_3 - \frac{Z}{q} = 0$$

$$R - \frac{Y \cdot q \cdot \left(X^2 + o^2\right) \cdot (X \cdot p + Y \cdot o) \ \ldots + -Y \cdot Z \cdot o \cdot \left(p \cdot X^2 + Y \cdot X \cdot o + Y \cdot o^2\right) - \sqrt{\begin{matrix} Z^2 \cdot Y^2 \cdot o^2 \cdot \left(p \cdot X^2 + Y \cdot X \cdot o + Y \cdot o^2\right)^2 \ \ldots \\ + \ -2 \cdot Z \cdot o \cdot q \cdot \left(p \cdot X^2 + Y \cdot X \cdot o + Y \cdot o^2\right) \cdot (X \cdot p + Y \cdot o) \cdot \left(X^2 \cdot Y^2 - 2 \cdot X^2 \cdot Y \cdot p + 2 \cdot X^2 \cdot p^2 - 2 \cdot X \cdot Y^2 \cdot o + 4 \cdot X \cdot Y \cdot o \cdot p + 3 \cdot Y^2 \cdot o^2\right) \ \ldots \\ + \ q^2 \cdot (X \cdot p + Y \cdot o)^2 \cdot \left(X^2 \cdot Y - Y \cdot o^2 - 2 \cdot X^2 \cdot p - 2 \cdot X \cdot Y \cdot o\right)^2 \end{matrix}}}{2 \cdot o \cdot q \cdot (X \cdot p + Y \cdot o) \cdot (X \cdot Y - X \cdot p - Y \cdot o)} = 0$$



$N_1 = 1.00000$

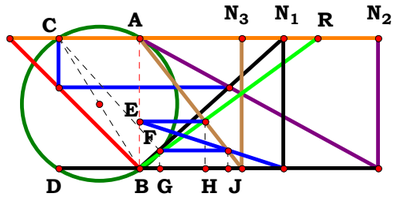
$N_2 = 2.00000$

$N_3 = 0.60000$

$R = 0.73205$

$$\frac{\sqrt{((N_2^2 \cdot N_3^2 \cdot (N_1^2 + N_1 \cdot N_2 + N_2)^2) + ((N_1 \cdot N_2 \cdot (N_1 - 2) - N_2 - 2 \cdot N_1^2)^2 \cdot (N_1 + N_2)^2)) - (2 \cdot N_3 \cdot (N_1^2 + N_1 \cdot N_2 + N_2) \cdot (N_1 + N_2) \cdot (N_1 \cdot N_2 \cdot (N_1 - 2) \cdot (N_2 - 2) + 2 \cdot N_1^2 + 3 \cdot N_2^2))} - (N_2 \cdot ((((N_1 + N_2 + N_1^2 \cdot N_2) - N_1^2 \cdot N_3) + N_1^3) - N_2 \cdot N_3 - N_1 \cdot N_2 \cdot N_3))}{2 \cdot (N_1 + N_2) \cdot ((N_1 + N_2) - N_1 \cdot N_2)} - R = 0.00000$$

4RST8AB4R11



$N_1 = 1.10159$
$N_2 = 1.82802$
$N_3 = 0.78668$
$R = 1.36734$

Unit. $AB := 1$ **Given.** $N_1 := 1.10159$ $N_2 := 1.82802$ $N_3 := .78668$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

$$AC := \frac{N_2}{N_1 + N_2} \qquad BN_1 := \sqrt{AB^2 + N_1{}^2}$$

$$FN_1 := \frac{N_1 \cdot (N_1 + AC)}{BN_1} \qquad BF := BN_1 - FN_1$$

$$BG := \frac{N_1 \cdot BF}{BN_1} \qquad FG := \frac{BG}{N_1}$$

$$BJ := N_3 \cdot (AB - FG) \qquad BE := \frac{FG \cdot N_1}{N_1 - BJ}$$

$$BH := N_3 \cdot (AB - BE) \qquad R := \frac{BH}{BE} \qquad R = 1.367376$$

Definitions.

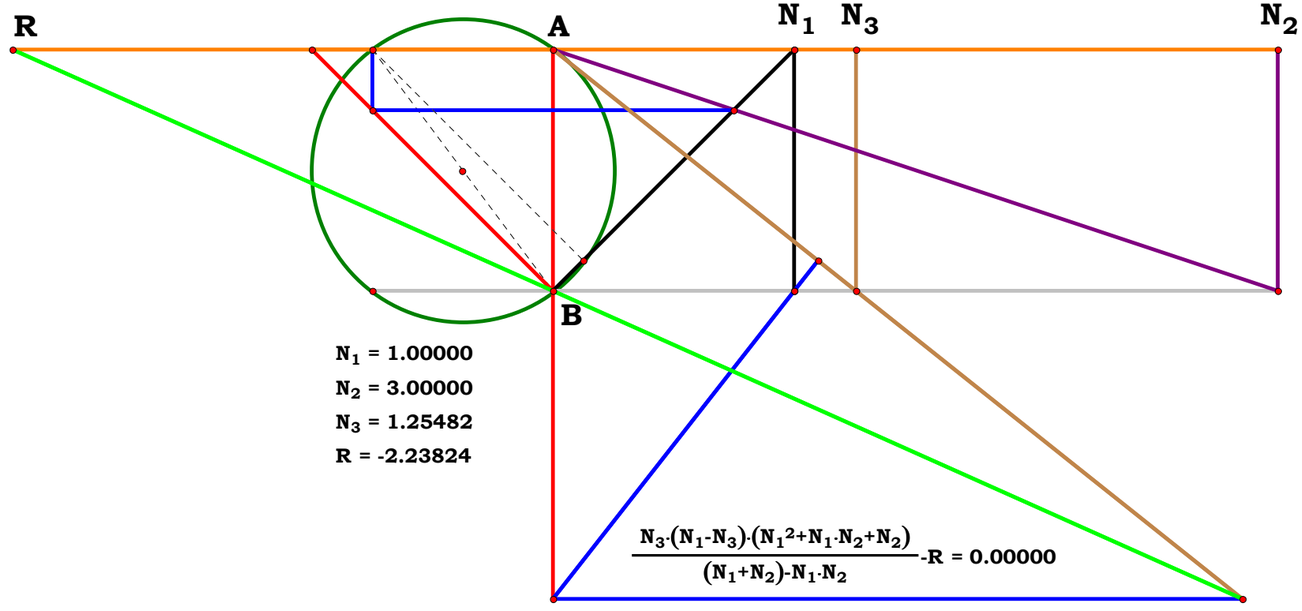
$$R - \frac{N_3 \cdot (N_1 - N_3) \cdot (N_1{}^2 + N_1 \cdot N_2 + N_2)}{N_1 + N_2 - N_1 \cdot N_2} = 0$$

$$N_1 - \frac{N_u}{A} = 0 \qquad N_2 - \frac{N_u}{B} = 0 \qquad N_3 - \frac{N_u}{C} = 0$$

$$R - \frac{N_u{}^2 \cdot (C - A) \cdot [A^2 + N_u \cdot (A + B)]}{A^2 \cdot C^2 \cdot (A + B - N_u)} = 0$$

$$N_1 - \frac{X}{o} = 0 \qquad N_2 - \frac{Y}{p} = 0 \qquad N_3 - \frac{Z}{q} = 0$$

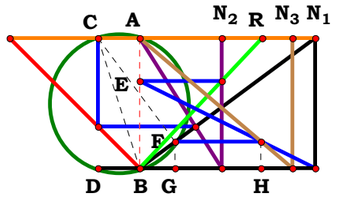
$$R - \frac{Z \cdot (X \cdot q - Z \cdot o) \cdot (p \cdot X^2 + Y \cdot X \cdot o + Y \cdot o^2)}{o^2 \cdot q^2 \cdot (X \cdot p - X \cdot Y + Y \cdot o)} = 0$$



$N_1 = 1.00000$
$N_2 = 3.00000$
$N_3 = 1.25482$
$R = -2.23824$

$$\frac{N_3 \cdot (N_1 - N_3) \cdot (N_1{}^2 + N_1 \cdot N_2 + N_2)}{(N_1 + N_2) - N_1 \cdot N_2} - R = 0.00000$$

4RST8AB4R12



$N_1 = 1.34373$
$N_2 = 0.62698$
$N_3 = 1.17412$
$R = 0.93569$

Unit. $AB := 1$ Given. $N_1 := 1.34373$ $N_2 := .62698$ $N_3 := 1.17412$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

$AC := \frac{N_2}{N_1 + N_2}$ $BN_1 := \sqrt{AB^2 + N_1^2}$

$FN_1 := \frac{N_1 \cdot (N_1 + AC)}{BN_1}$ $BF := BN_1 - FN_1$

$BG := \frac{N_1 \cdot BF}{BN_1}$ $FG := \frac{BG}{N_1}$

$BH := N_3 \cdot (AB - FG)$ $BE := \frac{FG \cdot N_1}{N_1 - BH}$

$R := \frac{N_2}{BE}$ $R = 0.935678$

Definitions.

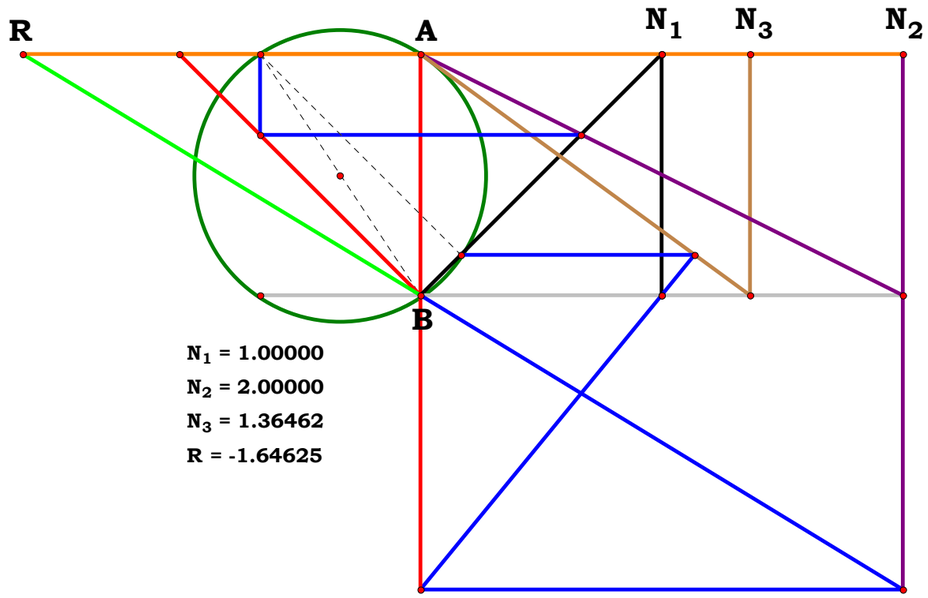
$$R - \frac{N_2 \cdot (N_1^2 + 1) \cdot (N_1 + N_2) - N_2 \cdot N_3 \cdot (N_1^2 + N_1 \cdot N_2 + N_2)}{N_1 + N_2 - N_1 \cdot N_2} = 0$$

$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$

$$R - \frac{N_u \cdot \left[N_u^2 \cdot (C - A) \cdot (A + B) - A^3 \cdot N_u + A^2 \cdot C \cdot (A + B) \right]}{A^2 \cdot B \cdot C \cdot (A + B - N_u)} = 0$$

$N_1 - \frac{X}{o} = 0$ $N_2 - \frac{Y}{p} = 0$ $N_3 - \frac{Z}{q} = 0$

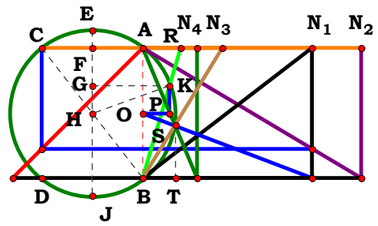
$$R - \frac{Y \cdot q \cdot (X^2 + o^2) \cdot (X \cdot p + Y \cdot o) - Z \cdot Y \cdot o \cdot (p \cdot X^2 + Y \cdot X \cdot o + Y \cdot o^2)}{o^2 \cdot p \cdot q \cdot (X \cdot p - X \cdot Y + Y \cdot o)} = 0$$



$N_1 = 1.00000$
$N_2 = 2.00000$
$N_3 = 1.36462$
$R = -1.64625$

$$\frac{N_2 \cdot (N_1^2 + 1) \cdot (N_1 + N_2) - N_2 \cdot N_3 \cdot (N_1^2 + N_1 \cdot N_2 + N_2)}{(N_1 + N_2) - N_1 \cdot N_2} - R = 0.00000$$

4RST8AB5R0



$N_1 = 1.29530$
$N_2 = 1.67305$
$N_3 = 0.61234$
$N_4 = 0.41626$
$R = 0.29129$

Unit. $AB := 1$ Given. $N_1 := 1.2953$ $N_2 := 1.67305$ $N_3 := .61234$ $N_4 := .41626$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

$AC := \frac{N_1}{N_2}$ $EJ := \sqrt{AB^2 + AC^2}$ $EF := \frac{EJ - AB}{2}$

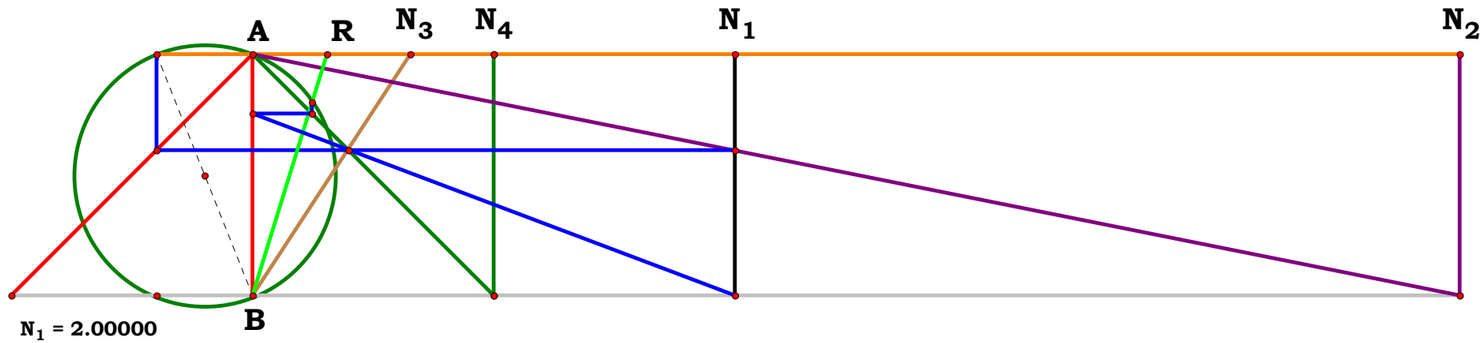
$AF := \frac{AC}{2}$ $HK := \frac{EJ}{2}$ $ST := \frac{N_4}{N_4 + N_3}$

$BT := N_3 \cdot ST$ $TU := N_1 - BT$ $BO := \frac{ST \cdot N_1}{TU}$

$OP := N_4 - N_4 \cdot BO$ $GK := AF + OP$

$GH := \sqrt{HK^2 - GK^2}$ $EG := HK - GH$

$GJ := EJ - EG$ $R := \frac{OP}{GJ - EF}$ $R = 0.291293$



$N_1 = 2.00000$
$N_2 = 5.00000$
$N_3 = 0.65349$
$N_4 = 1.00000$
$R = 0.30731$

$$\frac{(2\cdot(N_1-N_4)\cdot N_3\cdot N_4\cdot\sqrt{N_2})}{\sqrt{(N_1{}^2\cdot N_2\cdot N_4{}^2)-(N_3{}^2\cdot(N_1-N_4)^2\cdot(4\cdot N_4\cdot(N_1+N_2\cdot N_4)-N_2))-(2\cdot N_1\cdot N_3\cdot N_4\cdot(N_1-N_4)\cdot(2\cdot N_1\cdot N_4-N_2))}+(\sqrt{N_2}\cdot((N_1\cdot N_3+N_1\cdot N_4)-N_3\cdot N_4))} - R = 0.00000$$

Definitions.

$$R - \frac{2\cdot\sqrt{N_2}\cdot N_3\cdot N_4\cdot(N_1-N_4)}{\sqrt{N_1{}^2\cdot N_2\cdot N_4{}^2 - N_3{}^2\cdot(N_1-N_4)^2\cdot[4\cdot N_4\cdot(N_1+N_2\cdot N_4)-N_2] - 2\cdot N_1\cdot N_3\cdot N_4\cdot(N_1-N_4)\cdot(2\cdot N_1\cdot N_4-N_2)} + \sqrt{N_2}\cdot(N_1\cdot N_3+N_1\cdot N_4-N_3\cdot N_4)} = 0$$

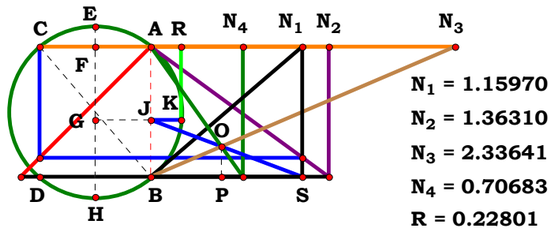
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{2\cdot(\sqrt{N_u})^3\cdot(A-D)\cdot\sqrt{A\cdot B}}{\sqrt{A\cdot B}\cdot\sqrt{N_u}\cdot D\cdot(A-C-D) - \sqrt{B}\cdot\sqrt{N_u\cdot[A\cdot D^2\cdot(C-A+D)^2 - 4\cdot A\cdot N_u{}^2\cdot(A-D)^2 + 4\cdot B\cdot D\cdot N_u\cdot(A-D)\cdot(C-A+D)]}} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{2\cdot\sqrt{X}\cdot Y\cdot Z\cdot(W\cdot p - Z\cdot m)\cdot\sqrt{m}}{\sqrt{W^2\cdot X\cdot Z^2\cdot m\cdot o^2\cdot p^2 - Y^2\cdot(W\cdot p - Z\cdot m)^2\cdot(4\cdot X\cdot m\cdot Z^2 + 4\cdot W\cdot n\cdot Z\cdot p - X\cdot m\cdot p^2) - 2\cdot Y\cdot W\cdot Z\cdot o\cdot p\cdot(W\cdot p - Z\cdot m)\cdot(2\cdot W\cdot Z\cdot n - X\cdot m\cdot p) + \sqrt{m}\cdot\sqrt{X}\cdot p\cdot(W\cdot Y\cdot p + W\cdot Z\cdot o - Y\cdot Z\cdot m)} = 0$$

4RST8AB5R1



$N_1 = 1.15970$
$N_2 = 1.36310$
$N_3 = 2.33641$
$N_4 = 0.70683$
$R = 0.22801$

Unit. $AB := 1$ **Given.** $N_1 := 1.15970$ $N_2 := 1.36310$ $N_3 := 2.33641$ $N_4 := .70683$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

$AC := \frac{N_1}{N_2}$ $EH := \sqrt{AB^2 + AC^2}$

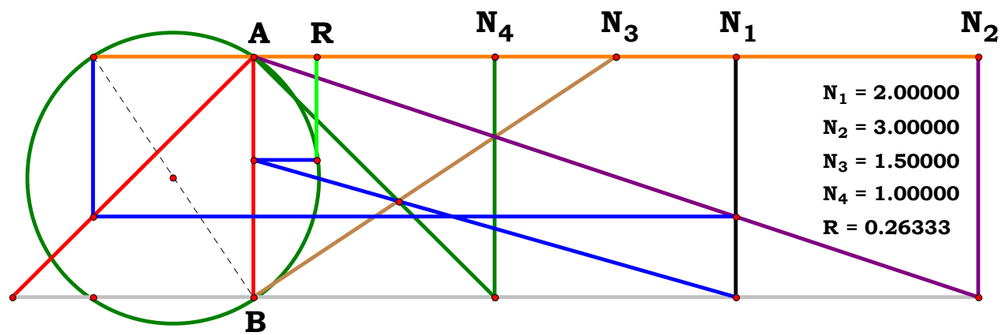
$AF := \frac{AC}{2}$ $EF := \frac{EH - AB}{2}$

$OP := \frac{N_4}{N_3 + N_4}$ $BP := N_3 \cdot OP$

$PS := N_1 - BP$ $BJ := \frac{OP \cdot N_1}{PS}$

$GH := BJ + EF$ $GK := \sqrt{GH \cdot (EH - GH)}$

$R := GK - AF$ $R = 0.228007$



$$\frac{\sqrt{(N_1 \cdot N_3 \cdot (N_1 - N_4))^2 + (2 \cdot N_1 \cdot N_3 \cdot N_4 \cdot (N_1^2 + 2 \cdot N_2^2) \cdot (N_1 - N_4)) + (N_1^4 \cdot N_4^2)} - (N_1 \cdot ((N_1 \cdot N_3 + N_1 \cdot N_4) - N_3 \cdot N_4))}{(2 \cdot N_2 \cdot ((N_1 \cdot N_3 + N_1 \cdot N_4) - N_3 \cdot N_4))} - R = 0.00000$$

Definitions.

$$R - \frac{\sqrt{N_1^2 \cdot N_3^2 \cdot (N_1 - N_4)^2 + 2 \cdot N_1 \cdot N_3 \cdot N_4 \cdot (N_1^2 + 2 \cdot N_2^2) \cdot (N_1 - N_4) + N_1^4 \cdot N_4^2} - N_1 \cdot (N_1 \cdot N_3 + N_1 \cdot N_4 - N_3 \cdot N_4)}{2 \cdot N_2 \cdot (N_1 \cdot N_3 + N_1 \cdot N_4 - N_3 \cdot N_4)} = 0$$

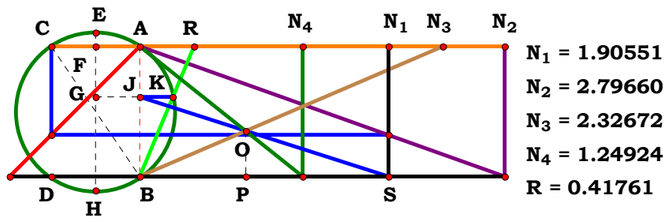
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{B \cdot (A - C - D) + \sqrt{B^2 \cdot C^2 + B^2 \cdot (A - D)^2 - 2 \cdot C \cdot (2 \cdot A^2 + B^2) \cdot (A - D)}}{2 \cdot A \cdot (C - A + D)} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{\sqrt{Y^2 \cdot W^2 \cdot n^2 \cdot (W \cdot p - Z \cdot m)^2 + 2 \cdot Y \cdot W \cdot Z \cdot o \cdot (W^2 \cdot n^2 + 2 \cdot X^2 \cdot m^2) \cdot (W \cdot p - Z \cdot m) + W^4 \cdot Z^2 \cdot n^2 \cdot o^2} - W \cdot n \cdot (W \cdot Y \cdot p + W \cdot Z \cdot o - Y \cdot Z \cdot m)}{2 \cdot X \cdot m \cdot (W \cdot Y \cdot p + W \cdot Z \cdot o - Y \cdot Z \cdot m)} = 0$$

4RST8AB5R2



$N_1 = 1.90551$
$N_2 = 2.79660$
$N_3 = 2.32672$
$N_4 = 1.24924$
$R = 0.41761$

Unit. $AB := 1$ Given. $N_1 := 1.90551$ $N_2 := 2.79660$ $N_3 := 2.32672$ $N_4 := 1.24924$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

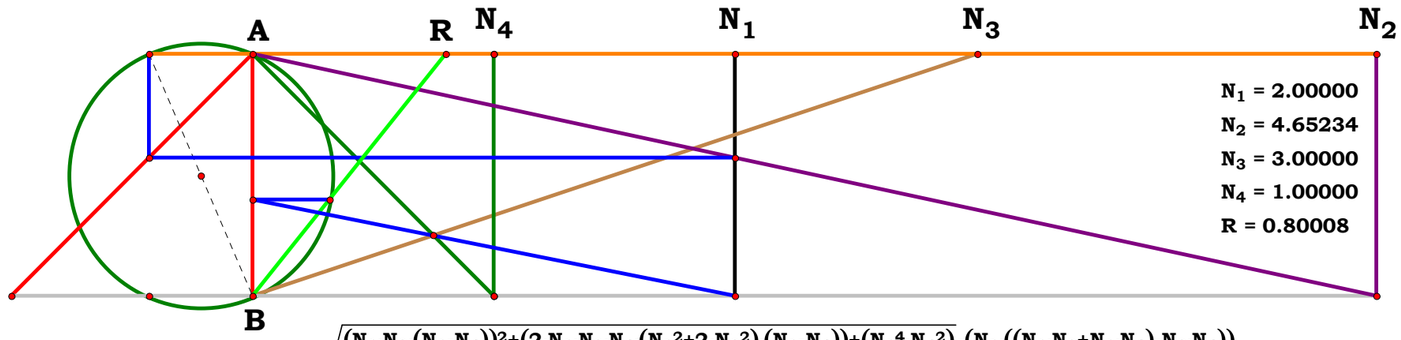
$AC := \frac{N_1}{N_2}$ $EH := \sqrt{AB^2 + AC^2}$ $AF := \frac{AC}{2}$

$EF := \frac{EH - AB}{2}$ $OP := \frac{N_4}{N_3 + N_4}$ $BP := N_3 \cdot OP$

$PS := N_1 - BP$ $BJ := \frac{OP \cdot N_1}{PS}$ $GH := BJ + EF$

$EG := EH - GH$ $GK := \sqrt{EG \cdot GH}$

$R := \frac{GK - AF}{BJ}$ $R = 0.417606$



$$\frac{\sqrt{(N_1 \cdot N_3 \cdot (N_1 - N_4))^2 + (2 \cdot N_1 \cdot N_3 \cdot N_4 \cdot (N_1^2 + 2 \cdot N_2^2) \cdot (N_1 - N_4)) + (N_1^4 \cdot N_4^2)} - (N_1 \cdot ((N_1 \cdot N_3 + N_1 \cdot N_4) - N_3 \cdot N_4))}{(2 \cdot N_1 \cdot N_2 \cdot N_4)} - R = 0.00000$$

Definitions.

$$R - \frac{\sqrt{N_1^2 \cdot N_3^2 \cdot (N_1 - N_4)^2 + 2 \cdot N_1 \cdot N_3 \cdot N_4 \cdot (N_1^2 + 2 \cdot N_2^2) \cdot (N_1 - N_4) + N_1^4 \cdot N_4^2} - N_1 \cdot (N_1 \cdot N_3 + N_1 \cdot N_4 - N_3 \cdot N_4)}{2 \cdot N_1 \cdot N_2 \cdot N_4} = 0$$

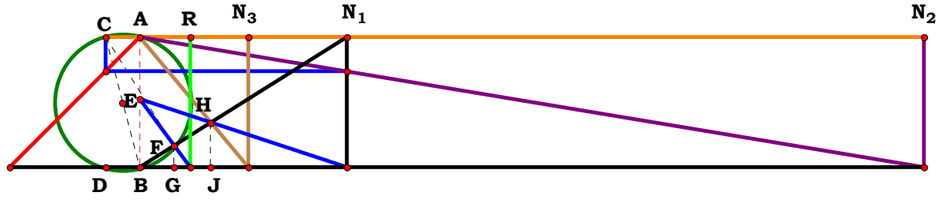
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{B \cdot (A - C - D) + \sqrt{B^2 \cdot C^2 + B^2 \cdot (A - D)^2 - 2 \cdot C \cdot (2 \cdot A^2 + B^2) \cdot (A - D)}}{2 \cdot A \cdot C} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{\sqrt{Y^2 \cdot W^2 \cdot n^2 \cdot (W \cdot p - Z \cdot m)^2 + 2 \cdot Y \cdot W \cdot Z \cdot o \cdot (W^2 \cdot n^2 + 2 \cdot X^2 \cdot m^2) \cdot (W \cdot p - Z \cdot m) + W^4 \cdot Z^2 \cdot n^2 \cdot o^2} - W \cdot n \cdot (W \cdot Y \cdot p + W \cdot Z \cdot o - Y \cdot Z \cdot m)}{2 \cdot W \cdot X \cdot Z \cdot m \cdot o} = 0$$

4RST8AB5R4



$N_1 = 1.58588$
$N_2 = 6.01228$
$N_3 = 0.83511$
$R = 0.38271$

Unit. $AB := 1$ **Given.** $N_1 := 1.58588$ $N_2 := 6.01228$

$N_3 := .83511$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

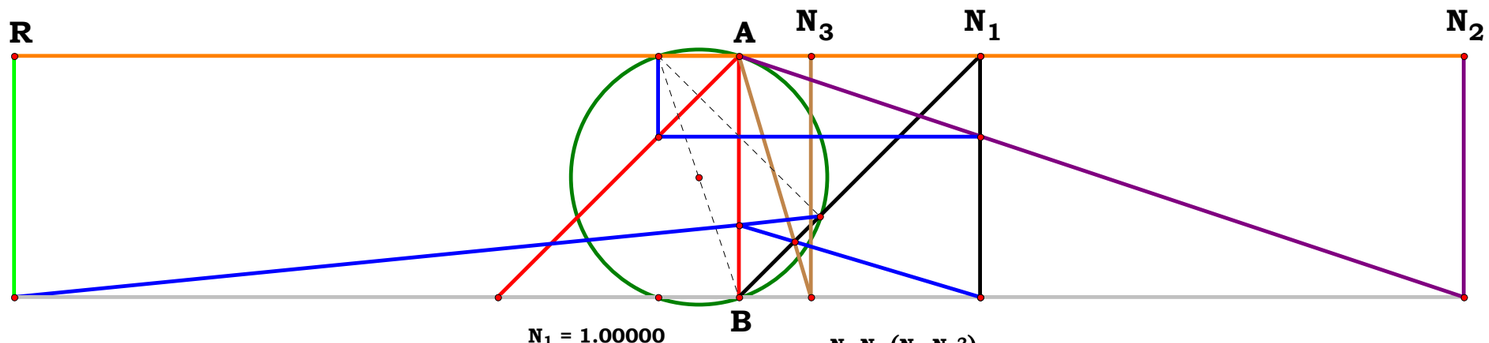
$AC := \frac{N_1}{N_2}$ $HJ := \frac{N_3}{N_1 + N_3}$

$BJ := N_1 \cdot HJ$ $BN_1 := \sqrt{AB^2 + N_1{}^2}$

$FN_1 := \frac{N_1 \cdot (N_1 + AC)}{BN_1}$ $BF := BN_1 - FN_1$

$BG := \frac{N_1 \cdot BF}{BN_1}$ $FG := \frac{BG}{N_1}$

$BE := \frac{HJ \cdot N_1}{N_1 - BJ}$ $R := \frac{BE \cdot BG}{BE - FG}$ $R = 0.382713$



$N_1 = 1.00000$
$N_2 = 3.00000$
$N_3 = 0.30000$
$R = -3.00000$

$\frac{N_1 \cdot N_3 \cdot (N_2 - N_1{}^2)}{N_2 \cdot N_3 \cdot (N_1{}^2 + 1) + (N_1{}^2 - N_2)} - R = 0.00000$

Definitions.

$$R - \frac{N_1 \cdot N_3 \cdot (N_2 - N_1{}^2)}{N_2 \cdot N_3 \cdot (N_1{}^2 + 1) + N_1 \cdot (N_1{}^2 - N_2)} = 0$$

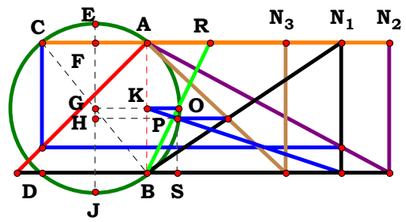
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$

$$R - \frac{N_u \cdot (A^2 - B \cdot N_u)}{A^2 \cdot (A - C) + N_u \cdot (B \cdot C + A \cdot N_u)} = 0$$

$N_1 - \frac{X}{o} = 0$ $N_2 - \frac{Y}{p} = 0$ $N_3 - \frac{Z}{q} = 0$

$$R - \frac{X \cdot Z \cdot (Y \cdot o^2 - X^2 \cdot p)}{Y \cdot o \cdot (Z \cdot X^2 - q \cdot X \cdot o + Z \cdot o^2) + X^3 \cdot p \cdot q} = 0$$

4RST8AB5R5



$N_1 = 1.48902$
$N_2 = 1.85708$
$N_3 = 1.06757$
$R = 0.48409$

Unit. $AB := 1$ Given. $N_1 := 1.48902$ $N_2 := 1.85708$ $N_3 := 1.06757$

Descriptions.

$$AC := \frac{N_1}{N_2} \qquad EJ := \sqrt{AB^2 + AC^2}$$

$$AF := \frac{AC}{2} \qquad EF := \frac{EJ - AB}{2}$$

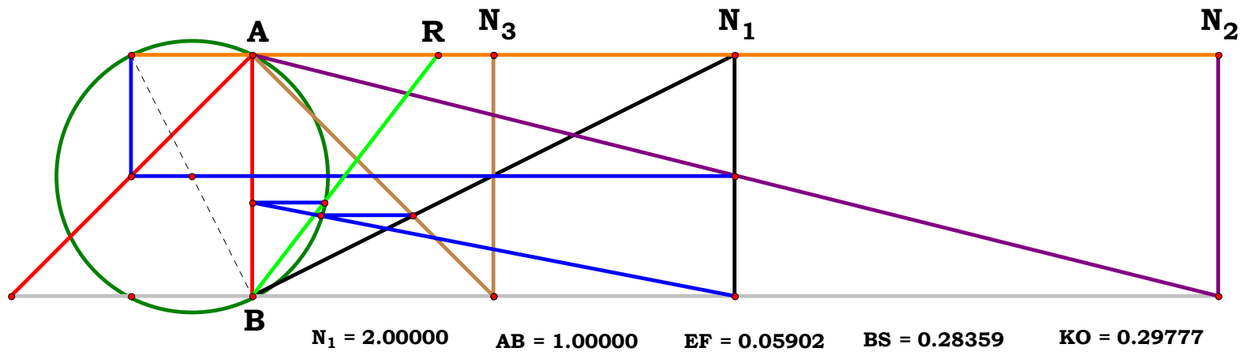
$$PS := \frac{N_3}{N_1 + N_3} \qquad HJ := PS + EF$$

$$HP := \sqrt{HJ \cdot (EJ - HJ)} \qquad BS := HP - AF$$

$$BK := \frac{PS \cdot N_1}{N_1 - BS} \qquad GJ := BK + EF$$

$$GO := \sqrt{GJ \cdot (EJ - GJ)} \qquad KO := GO - AF$$

$$R := \frac{KO}{BK} \qquad R = 0.484091$$



$N_1 = 2.00000$ $AB = 1.00000$ $EF = 0.05902$ $BS = 0.28359$ $KO = 0.29777$
$N_2 = 4.00000$ $AC = 0.50000$ $PS = 0.33333$ $BK = 0.38841$ $R - \frac{KO}{BK} = 0.00000$
$N_3 = 1.00000$ $EJ = 1.11803$ $HJ = 0.39235$ $GJ = 0.44743$
$R = 0.76663$ $AF = 0.25000$ $HP = 0.53359$ $GO = 0.54777$

Definitions.

$$A := \sqrt{AC^2 \cdot (N_1 + N_3)^2 + 4 \cdot N_1 \cdot N_3} \qquad B := \sqrt{(N_1 + N_3)^2} \qquad C := \sqrt{(N_1 + N_3)^2 \cdot [A - B \cdot (AC + 2 \cdot N_1)]^2}$$

$$D := \sqrt{AC^2 \cdot (N_1 + N_3)^2 \cdot (A - AC \cdot B - 2 \cdot B \cdot N_1)^2 - 8 \cdot B \cdot N_1 \cdot N_3 \cdot [(N_1 + N_3) \cdot (A - AC \cdot B) - 2 \cdot B \cdot N_1^2]}$$

$$R - \frac{(AC \cdot C - D) \cdot (N_1 + N_3) \cdot (A - AC \cdot B - 2 \cdot B \cdot N_1)}{4 \cdot B \cdot C \cdot N_1 \cdot N_3} = 0$$

$$AC - \frac{N_1}{N_2} = 0 \qquad EJ - \frac{\sqrt{N_1^2 + N_2^2}}{N_2} = 0 \qquad AF - \frac{N_1}{2 \cdot N_2} = 0 \qquad EF - \frac{\sqrt{N_1^2 + N_2^2} - N_2}{2 \cdot N_2} = 0$$

$$PS - \frac{N_3}{N_1 + N_3} = 0 \qquad HJ - \frac{N_2 \cdot N_3 - N_1 \cdot N_2 + \sqrt{N_1^2 + N_2^2} \cdot (N_1 + N_3)}{2 \cdot N_2 \cdot (N_1 + N_3)} = 0$$

$$HP - \frac{\sqrt{N_1 \cdot \left(N_1^3 + 2 \cdot N_1^2 \cdot N_3 + N_1 \cdot N_3^2 + 4 \cdot N_2^2 \cdot N_3\right)}}{2 \cdot N_2 \cdot (N_1 + N_3)} = 0$$

$$BS - \frac{\sqrt{N_1 \cdot \left(N_1^3 + 2 \cdot N_1^2 \cdot N_3 + N_1 \cdot N_3^2 + 4 \cdot N_2^2 \cdot N_3\right)} - N_1^2 - N_1 \cdot N_3}{2 \cdot N_2 \cdot (N_1 + N_3)} = 0$$

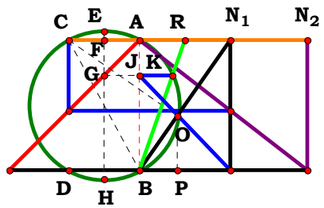
$$BK - \frac{2 \cdot N_1 \cdot N_3 \cdot N_2}{2 \cdot N_1^2 \cdot N_2 + N_1^2 - \sqrt{N_1 \cdot \left(N_1^3 + 2 \cdot N_1^2 \cdot N_3 + N_1 \cdot N_3^2 + 4 \cdot N_2^2 \cdot N_3\right)} + N_1 \cdot N_3 + 2 \cdot N_1 \cdot N_2 \cdot N_3} = 0$$

$$GJ - \frac{\left(N_2 - \sqrt{N_1^2 + N_2^2}\right) \cdot \sqrt{N_1^4 + 2 \cdot N_1^3 \cdot N_3 + N_1^2 \cdot N_3^2 + 4 \cdot N_1 \cdot N_2^2 \cdot N_3} + \sqrt{N_1^2 + N_2^2} \cdot \left[N_1 \cdot (2 \cdot N_2 + 1) \cdot (N_1 + N_3)\right] - N_1 \cdot N_2 \cdot \left(N_1 + N_3 + 2 \cdot N_1 \cdot N_2 - 2 \cdot N_2 \cdot N_3\right)}{2 \cdot N_2 \cdot \left(2 \cdot N_1^2 \cdot N_2 + N_1^2 - \sqrt{N_1^4 + 2 \cdot N_1^3 \cdot N_3 + N_1^2 \cdot N_3^2 + 4 \cdot N_1 \cdot N_2^2 \cdot N_3} + N_1 \cdot N_3 + 2 \cdot N_1 \cdot N_2 \cdot N_3\right)} = 0$$

$$GO - \sqrt{GJ \cdot (EJ - GJ)} = 0 \qquad KO - (GO - AF) = 0$$

$$R - \frac{KO}{BK} = 0$$

4RST8AB5R6



$N_1 = 0.69478$
$N_2 = 1.28562$
$R = 0.34426$

Unit. $AB := 1$ Given. $N_1 := .69478$ $N_2 := 1.28562$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $Y := 20$ $Z := 19$ $p := \frac{Y}{N_1}$ $q := \frac{Z}{N_2}$

Descriptions.

$AC := \frac{N_1}{N_2}$ $EH := \sqrt{AB^2 + AC^2}$ $AF := \frac{AC}{2}$

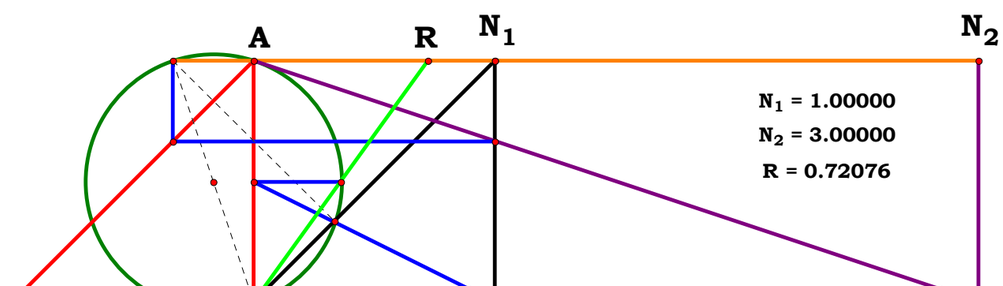
$EF := \frac{EH - AB}{2}$ $BN_1 := \sqrt{AB^2 + N_1^2}$

$ON_1 := \frac{N_1 \cdot (N_1 + AC)}{BN_1}$ $BO := BN_1 - ON_1$

$BP := \frac{N_1 \cdot BO}{BN_1}$ $OP := \frac{BP}{N_1}$ $BJ := \frac{OP \cdot N_1}{N_1 - BP}$

$GH := BJ + EF$ $GK := \sqrt{GH \cdot (EH - GH)}$

$JK := GK - AF$ $R := \frac{JK}{BJ}$ $R = 0.34425$



$N_1 = 1.00000$
$N_2 = 3.00000$
$R = 0.72076$

$$\frac{B}{\frac{(N_1^3 \cdot N_2 + N_1^3) - \sqrt{(((N_1^6 \cdot (N_2+1)^2) - (4 \cdot N_1^4 \cdot N_2^2 \cdot (N_2+2))) + (4 \cdot N_1^2 \cdot N_2^3 \cdot (N_2+3))) - (4 \cdot N_2^4)}}{(2 \cdot N_2 \cdot (N_1^2 - N_2))} - R} = 0.00000$$

Definitions.

$$R - \frac{N_1^3 \cdot N_2 + N_1^3 - \sqrt{N_1^6 \cdot (N_2+1)^2 - 4 \cdot N_1^4 \cdot N_2^2 \cdot (N_2+2) + 4 \cdot N_1^2 \cdot N_2^3 \cdot (N_2+3) - 4 \cdot N_2^4}}{2 \cdot N_2 \cdot (N_1^2 - N_2)} = 0$$

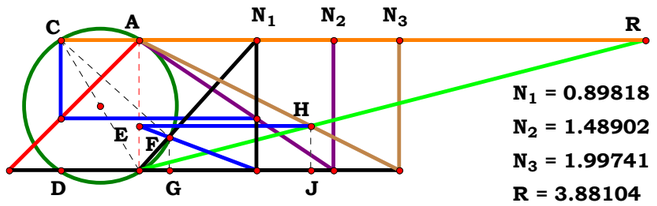
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$

$$R - \frac{\sqrt{4 \cdot A^4 \cdot N_u \cdot (3 \cdot B + N_u) + B^2 \cdot N_u^4 - 2 \cdot N_u^3 \cdot B \cdot (2 \cdot A^2 - B^2) - N_u^2 \cdot B^2 \cdot (8 \cdot A^2 - B^2) - 4 \cdot A^6} - B \cdot N_u \cdot (B + N_u)}{2 \cdot A \cdot (A^2 - B \cdot N_u)} = 0$$

$N_1 - \frac{Y}{p} = 0$ $N_2 - \frac{Z}{q} = 0$

$$R - \frac{Y^3 \cdot q \cdot (Z+q) - \sqrt{Y^6 \cdot q^2 \cdot (Z+q)^2 - 4 \cdot Y^4 \cdot Z^2 \cdot p^2 \cdot q \cdot (Z+2 \cdot q) + 4 \cdot Y^2 \cdot Z^3 \cdot p^4 \cdot (Z+3 \cdot q) - 4 \cdot Z^4 \cdot p^6}}{2 \cdot Z \cdot p \cdot (Y^2 \cdot q - Z \cdot p^2)} = 0$$

4RST8AB5R7



$N_1 = 0.89818$
$N_2 = 1.48902$
$N_3 = 1.99741$
$R = 3.88104$

Unit. $AB := 1$ **Given.** $N_1 := .89818$ $N_2 := 1.48902$ $N_3 := 1.99741$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

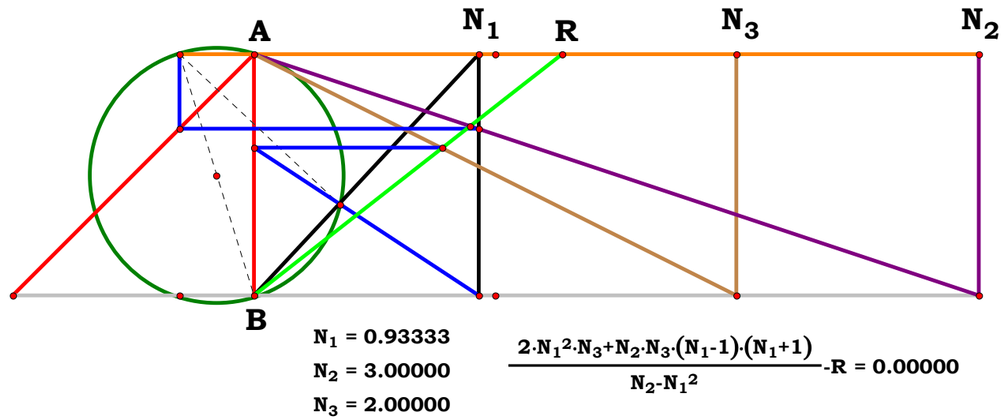
$AC := \frac{N_1}{N_2}$ $BN_1 := \sqrt{AB^2 + N_1^2}$

$FN_1 := \frac{N_1 \cdot (N_1 + AC)}{BN_1}$ $BF := BN_1 - FN_1$

$BG := \frac{N_1 \cdot BF}{BN_1}$ $FG := \frac{BG}{N_1}$

$BE := \frac{FG \cdot N_1}{N_1 - BG}$ $BJ := N_3 \cdot (AB - BE)$

$R := \frac{BJ}{BE}$ $R = 3.880889$



$N_1 = 0.93333$
$N_2 = 3.00000$
$N_3 = 2.00000$
$R = 1.27349$

$\frac{2 \cdot N_1^2 \cdot N_3 + N_2 \cdot N_3 \cdot (N_1 - 1) \cdot (N_1 + 1)}{N_2 - N_1^2} - R = 0.00000$

Definitions.

$R - \frac{2 \cdot N_1^2 \cdot N_3 + N_2 \cdot N_3 \cdot (N_1 - 1) \cdot (N_1 + 1)}{N_2 - N_1^2} = 0$

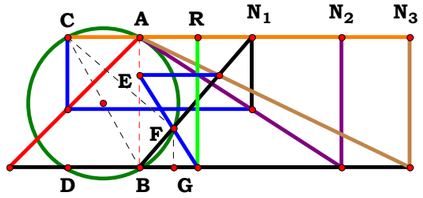
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$

$R - \frac{N_u^3 - N_u \cdot (A^2 - 2 \cdot B \cdot N_u)}{A^2 \cdot C - B \cdot C \cdot N_u} = 0$

$N_1 - \frac{X}{o} = 0$ $N_2 - \frac{Y}{p} = 0$ $N_3 - \frac{Z}{q} = 0$

$R - \frac{X^2 \cdot Y \cdot Z - Y \cdot Z \cdot o^2 + 2 \cdot X^2 \cdot Z \cdot p}{Y \cdot o^2 \cdot q - X^2 \cdot p \cdot q} = 0$

4RST8AB5R8



$N_1 = 0.85944$
$N_2 = 1.54713$
$N_3 = 2.07489$
$R = 0.44930$

Unit. $AB := 1$ Given. $N_1 := .85944$ $N_2 := 1.54713$ $N_3 := 2.07489$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

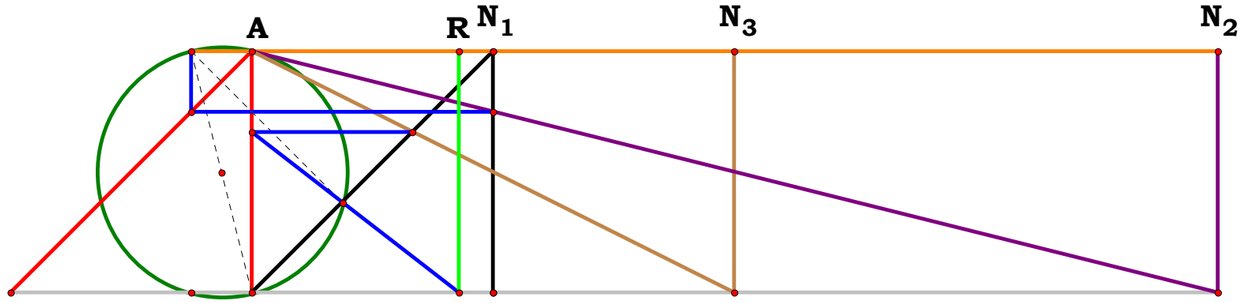
Descriptions.

$AC := \frac{N_1}{N_2}$ $BE := \frac{N_3}{N_1 + N_3}$

$BN_1 := \sqrt{AB^2 + N_1^2}$ $FN_1 := \frac{N_1 \cdot (N_1 + AC)}{BN_1}$

$BF := BN_1 - FN_1$ $BG := \frac{N_1 \cdot BF}{BN_1}$

$FG := \frac{BG}{N_1}$ $R := \frac{BG \cdot BE}{BE - FG}$ $R = 0.4493$



Definitions.

$$R - \frac{N_3 \cdot (N_2 - N_1^2)}{N_1^2 - N_2 + N_1 \cdot N_3 \cdot (N_2 + 1)} = 0$$

$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$

$$R - \frac{N_u \cdot (A^2 - B \cdot N_u)}{A \cdot N_u^2 - C \cdot A^2 + B \cdot N_u \cdot (A + C)} = 0$$

$N_1 - \frac{X}{o} = 0$ $N_2 - \frac{Y}{p} = 0$ $N_3 - \frac{Z}{q} = 0$

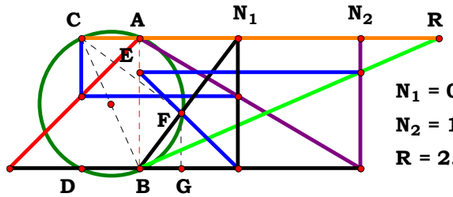
$$R - \frac{Z \cdot (Y \cdot o^2 - X^2 \cdot p)}{Y \cdot o \cdot (X \cdot Z - o \cdot q) + X \cdot p \cdot (X \cdot q + Z \cdot o)} = 0$$

B

$N_1 = 1.00000$
$N_2 = 4.00000$
$N_3 = 2.00000$
$R = 0.85714$

$$\frac{N_3 \cdot (N_2 - N_1^2)}{(N_1^2 - N_2) + N_1 \cdot N_3 \cdot (N_2 + 1)} - R = 0.00000$$

4RST8AB5R9



$N_1 = 0.75290$
$N_2 = 1.69242$
$R = 2.29484$

Unit. $AB := 1$ Given. $N_1 := .75290$ $N_2 := 1.69242$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $Y := 20$ $Z := 19$ $p := \frac{Y}{N_1}$ $q := \frac{Z}{N_2}$

Descriptions.

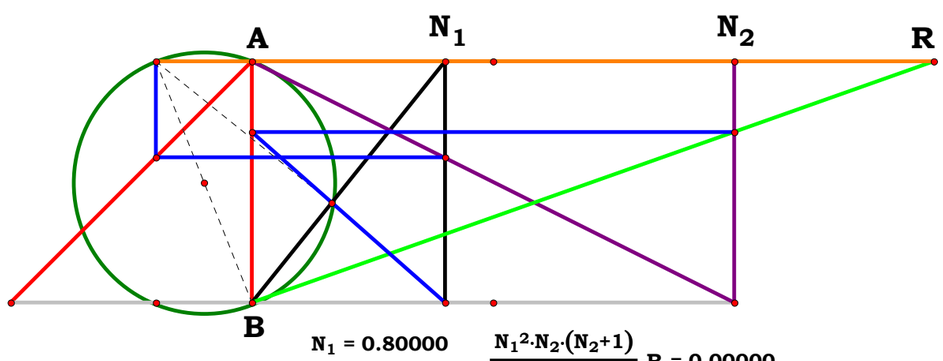
$AC := \frac{N_1}{N_2}$ $BN_1 := \sqrt{AB^2 + N_1^2}$

$FN_1 := \frac{N_1 \cdot (N_1 + AC)}{BN_1}$ $BF := BN_1 - FN_1$

$BG := \frac{N_1 \cdot BF}{BN_1}$ $FG := \frac{BG}{N_1}$

$BE := \frac{FG \cdot N_1}{N_1 - BG}$ $R := \frac{N_2}{BE}$

$R = 2.29486$



$N_1 = 0.80000$ $\frac{N_1^2 \cdot N_2 \cdot (N_2+1)}{N_2 - N_1^2} - R = 0.00000$

$N_2 = 2.00000$

$R = 2.82353$

Definitions.

$R - \frac{N_1^2 \cdot N_2 \cdot (N_2 + 1)}{N_2 - N_1^2} = 0$

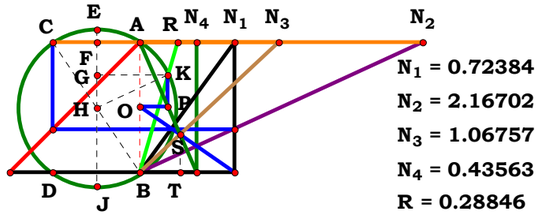
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$

$R - \frac{N_u^2 \cdot (B + N_u)}{B \cdot (A^2 - B \cdot N_u)} = 0$

$N_1 - \frac{Y}{p} = 0$ $N_2 - \frac{Z}{q} = 0$

$R - \frac{Y^2 \cdot Z \cdot (Z + q)}{q \cdot (Z \cdot p^2 - Y^2 \cdot q)} = 0$

4RST8AB6R0



$N_1 = 0.72384$
$N_2 = 2.16702$
$N_3 = 1.06757$
$N_4 = 0.43563$
$R = 0.28846$

Descriptions.

$$AC := \frac{N_2 - N_1}{N_2} \qquad EJ := \sqrt{AB^2 + AC^2} \qquad EF := \frac{EJ - AB}{2}$$

$$AF := \frac{AC}{2} \qquad HK := \frac{EJ}{2} \qquad ST := \frac{N_4}{N_4 + N_3} \qquad BT := N_3 \cdot ST$$

$$TU := N_1 - BT \qquad BO := \frac{ST \cdot N_1}{TU} \qquad OP := N_4 - N_4 \cdot BO$$

$$GK := AF + OP \qquad GH := \sqrt{HK^2 - GK^2} \qquad EG := HK - GH$$

$$GJ := EJ - EG \qquad R := \frac{OP}{GJ - EF} \qquad R = 0.288461$$

Definitions.

$$R - \frac{2 \cdot \sqrt{N_2} \cdot N_3 \cdot N_4 \cdot (N_1 - N_4)}{\sqrt{N_3^2 \cdot (N_1 - N_4)^2 \cdot (N_2 - 4 \cdot N_2 \cdot N_4^2 + 4 \cdot N_1 \cdot N_4 - 4 \cdot N_2 \cdot N_4) + 2 \cdot N_3 \cdot N_1 \cdot N_4 \cdot (N_1 - N_4) \cdot (N_2 + 2 \cdot N_1 \cdot N_4 - 2 \cdot N_2 \cdot N_4) + N_1^2 \cdot N_2 \cdot N_4^2} + \sqrt{N_2} \cdot (N_1 \cdot N_3 + N_1 \cdot N_4 - N_3 \cdot N_4)} = 0$$

$$N_1 - \frac{N_u}{A} = 0 \qquad N_2 - \frac{N_u}{B} = 0 \qquad N_3 - \frac{N_u}{C} = 0 \qquad N_4 - \frac{N_u}{D} = 0$$

$$R - \frac{2 \cdot \left(\sqrt{N_u}\right)^3 \cdot (A - D) \cdot \sqrt{A \cdot B}}{\sqrt{A \cdot B} \cdot \sqrt{N_u} \cdot D \cdot (A - C - D) - \sqrt{B} \cdot \sqrt{N_u \cdot \left[A \cdot D^2 \cdot (C - A + D)^2 - 4 \cdot A \cdot N_u^2 \cdot (A - D)^2 + 4 \cdot D \cdot N_u \cdot (A - B) \cdot (A - D) \cdot (C - A + D)\right]}} = 0$$

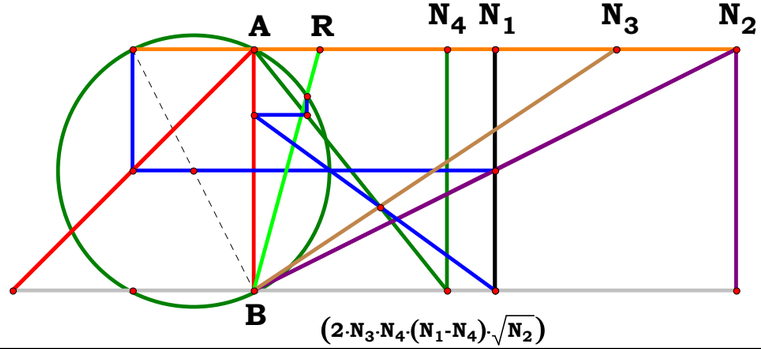
$$N_1 - \frac{W}{m} = 0 \qquad N_2 - \frac{X}{n} = 0 \qquad N_3 - \frac{Y}{o} = 0 \qquad N_4 - \frac{Z}{p} = 0$$

$$R - \frac{2 \cdot \sqrt{X} \cdot Y \cdot Z \cdot (W \cdot p - Z \cdot m) \cdot \sqrt{m}}{\sqrt{Y^2 \cdot (W \cdot p - Z \cdot m)^2 \cdot \left(X \cdot m \cdot p^2 - 4 \cdot X \cdot Z^2 \cdot m + 4 \cdot W \cdot Z \cdot n \cdot p - 4 \cdot X \cdot Z \cdot m \cdot p\right) \ \ldots \\ + \ 2 \cdot Y \cdot W \cdot Z \cdot o \cdot p \cdot (W \cdot p - Z \cdot m) \cdot (2 \cdot W \cdot Z \cdot n - 2 \cdot X \cdot Z \cdot m + X \cdot m \cdot p) + W^2 \cdot X \cdot Z^2 \cdot m \cdot o^2 \cdot p^2} + \sqrt{m} \cdot \sqrt{X} \cdot p \cdot (W \cdot Y \cdot p + W \cdot Z \cdot o - Y \cdot Z \cdot m)} = 0$$

Unit. $AB := 1$ **Given.** $N_1 := .72384$ $N_2 := 2.16702$ $N_3 := 1.06757$ $N_4 := .43563$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

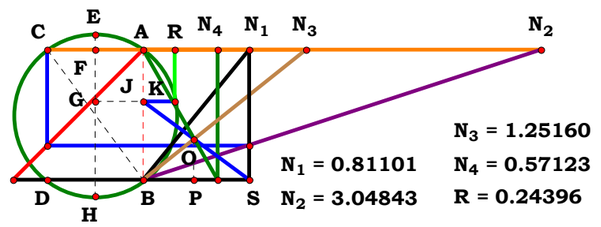
$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$



$N_1 = 1.00000$
$N_2 = 2.00000$
$N_3 = 1.50000$
$N_4 = 0.80000$
$R = 0.27088$

$$\frac{\left(2 \cdot N_3 \cdot N_4 \cdot (N_1 - N_4) \cdot \sqrt{N_2}\right)}{\sqrt{\left(N_3^2 \cdot (N_1 - N_4)^2 \cdot (N_2 + 4 \cdot N_4 \cdot (N_1 - N_2 - N_2 \cdot N_4)) + (2 \cdot N_1 \cdot N_3 \cdot N_4 \cdot (N_1 - N_4) \cdot (N_2 + 2 \cdot N_4 \cdot (N_1 - N_2))) + \left(N_1^2 \cdot N_2 \cdot N_4^2\right) + \sqrt{N_2} \cdot ((N_1 \cdot N_3 + N_1 \cdot N_4) - N_3 \cdot N_4)\right.}} - R = 0.00000$$

4RST8AB6R1



Unit. $AB := 1$ **Given.** $N_1 := .81101$ $N_2 := 3.04843$ $N_3 := 1.25160$ $N_4 := .57123$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

$AC := \frac{N_2 - N_1}{N_2}$ $EH := \sqrt{AB^2 + AC^2}$

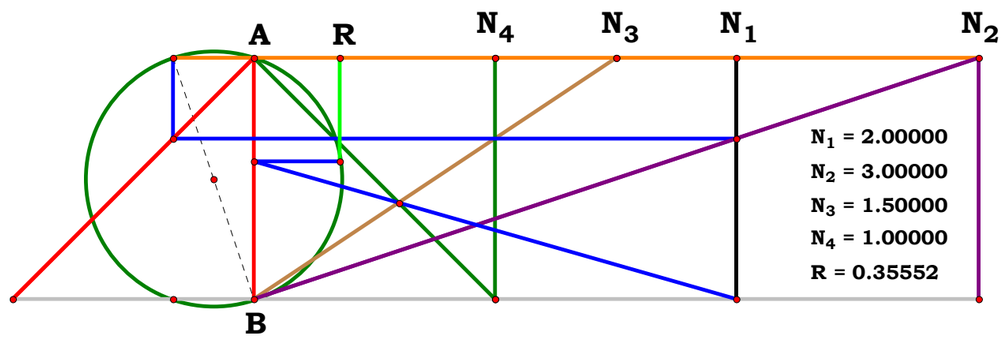
$AF := \frac{AC}{2}$ $EF := \frac{EH - AB}{2}$

$OP := \frac{N_4}{N_3 + N_4}$ $BP := N_3 \cdot OP$

$PS := N_1 - BP$ $BJ := \frac{OP \cdot N_1}{PS}$

$GH := BJ + EF$ $GK := \sqrt{GH \cdot (EH - GH)}$

$R := GK - AF$ $R = 0.243965$



$$\frac{\sqrt{((N_1-N_2)^2\cdot((N_1-N_4)^2\cdot N_3^2+N_1^2\cdot N_4^2))+(2\cdot N_1\cdot N_3\cdot N_4\cdot((N_1^2-2\cdot N_1\cdot N_2)+3\cdot N_2^2)\cdot(N_1-N_4))}+(N_1-N_2)\cdot((N_1\cdot N_3+N_1\cdot N_4)-N_3\cdot N_4)}{2\cdot N_2\cdot((N_1\cdot N_3+N_1\cdot N_4)-N_3\cdot N_4)} - R = 0.00000$$

Definitions.

$$R - \frac{\sqrt{(N_1-N_2)^2\cdot\left[(N_1-N_4)^2\cdot N_3{}^2+N_1{}^2\cdot N_4{}^2\right]+2\cdot N_1\cdot N_3\cdot N_4\cdot\left(N_1{}^2-2\cdot N_1\cdot N_2+3\cdot N_2{}^2\right)\cdot(N_1-N_4)}+(N_1-N_2)\cdot(N_1\cdot N_3+N_1\cdot N_4-N_3\cdot N_4)}{2\cdot N_2\cdot(N_1\cdot N_3+N_1\cdot N_4-N_3\cdot N_4)} = 0$$

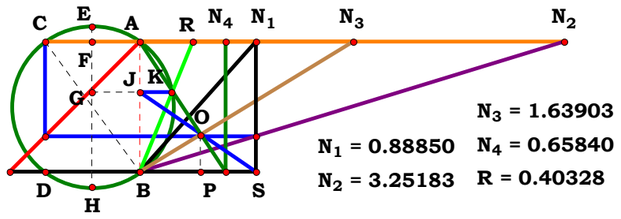
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{(A-C-D)\cdot(A-B)+\sqrt{C^2\cdot(A-B)^2+(A-B)^2\cdot(A-D)^2-2\cdot C\cdot(A-D)\cdot\left(3\cdot A^2-2\cdot A\cdot B+B^2\right)}}{2\cdot A\cdot(C-A+D)} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{\sqrt{Y^2\cdot(W\cdot p-Z\cdot m)^2\cdot(W\cdot n-X\cdot m)^2+2\cdot Y\cdot W\cdot Z\cdot o\cdot\left(W^2\cdot n^2-2\cdot W\cdot X\cdot m\cdot n+3\cdot X^2\cdot m^2\right)\cdot(W\cdot p-Z\cdot m)+W^2\cdot Z^2\cdot o^2\cdot(W\cdot n-X\cdot m)^2}+(W\cdot Y\cdot p+W\cdot Z\cdot o-Y\cdot Z\cdot m)\cdot(W\cdot n-X\cdot m)}{2\cdot X\cdot m\cdot(W\cdot Y\cdot p+W\cdot Z\cdot o-Y\cdot Z\cdot m)} = 0$$

4RST8AB6R2



$N_3 = 1.63903$
$N_1 = 0.88850$ $N_4 = 0.65840$
$N_2 = 3.25183$ $R = 0.40328$

Unit. $AB := 1$ Given. $N_1 := .88850$ $N_2 := 3.25183$ $N_3 := 1.63903$ $N_4 := .65840$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$ $D := \frac{N_u}{N_4}$

$W := 20$ $X := 19$ $Y := 18$ $Z := 17$ $m := \frac{W}{N_1}$ $n := \frac{X}{N_2}$ $o := \frac{Y}{N_3}$ $p := \frac{Z}{N_4}$

Descriptions.

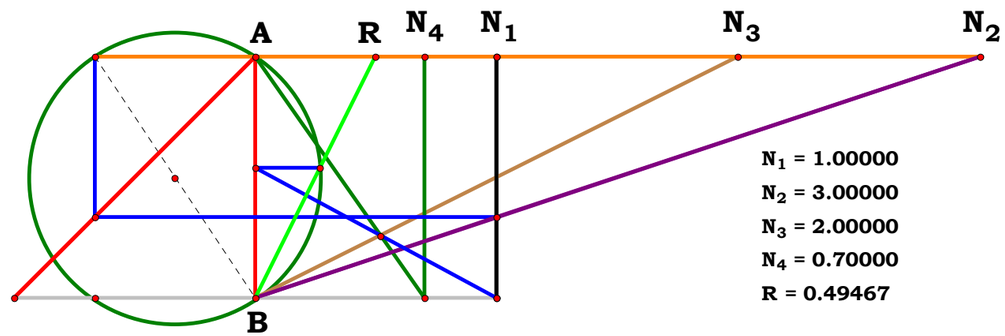
$AC := \frac{N_2 - N_1}{N_2}$ $EH := \sqrt{AB^2 + AC^2}$ $AF := \frac{AC}{2}$

$EF := \frac{EH - AB}{2}$ $OP := \frac{N_4}{N_3 + N_4}$ $BP := N_3 \cdot OP$

$PS := N_1 - BP$ $BJ := \frac{OP \cdot N_1}{PS}$ $GH := BJ + EF$

$EG := EH - GH$ $GK := \sqrt{EG \cdot GH}$

$R := \frac{GK - AF}{BJ}$ $R = 0.403288$



$N_1 = 1.00000$
$N_2 = 3.00000$
$N_3 = 2.00000$
$N_4 = 0.70000$
$R = 0.49467$

$$\frac{\sqrt{((N_3^2\cdot(N_1-N_4)^2+N_1^2\cdot N_4^2)\cdot(N_1-N_2)^2)+(2\cdot N_1\cdot N_3\cdot N_4\cdot((N_1^2-2\cdot N_1\cdot N_2)+3\cdot N_2^2)\cdot(N_1-N_4))}+(N_1-N_2)\cdot((N_1\cdot N_3+N_1\cdot N_4)-N_3\cdot N_4)}{2\cdot N_1\cdot N_2\cdot N_4} - R = 0.00000$$

Definitions.

$$R - \frac{\sqrt{\left[N_3^2\cdot(N_1-N_4)^2+N_1^2\cdot N_4^2\right]\cdot(N_1-N_2)^2+2\cdot N_1\cdot N_3\cdot N_4\cdot\left(N_1^2-2\cdot N_1\cdot N_2+3\cdot N_2^2\right)\cdot(N_1-N_4)}+(N_1-N_2)\cdot(N_1\cdot N_3+N_1\cdot N_4-N_3\cdot N_4)}{2\cdot N_1\cdot N_2\cdot N_4} = 0$$

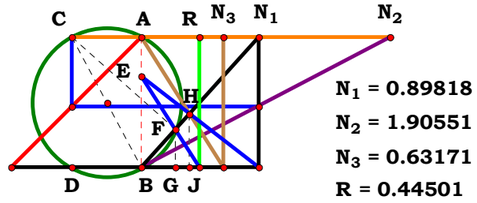
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_4 - \frac{N_u}{D} = 0$

$$R - \frac{(A-C-D)\cdot(A-B)+\sqrt{C^2\cdot(A-B)^2+(A-B)^2\cdot(A-D)^2-2\cdot C\cdot(A-D)\cdot\left(3\cdot A^2-2\cdot A\cdot B+B^2\right)}}{2\cdot A\cdot C} = 0$$

$N_1 - \frac{W}{m} = 0$ $N_2 - \frac{X}{n} = 0$ $N_3 - \frac{Y}{o} = 0$ $N_4 - \frac{Z}{p} = 0$

$$R - \frac{\sqrt{Y^2\cdot(W\cdot p-Z\cdot m)^2\cdot(W\cdot n-X\cdot m)^2+2\cdot Y\cdot W\cdot Z\cdot o\cdot\left(W^2\cdot n^2-2\cdot W\cdot X\cdot m\cdot n+3\cdot X^2\cdot m^2\right)\cdot(W\cdot p-Z\cdot m)+W^2\cdot Z^2\cdot o^2\cdot(W\cdot n-X\cdot m)^2}+(W\cdot Y\cdot p+W\cdot Z\cdot o-Y\cdot Z\cdot m)\cdot(W\cdot n-X\cdot m)}{2\cdot W\cdot X\cdot Z\cdot m\cdot o} = 0$$

4RST8AB6R4



$N_1 = 0.89818$

$N_2 = 1.90551$

$N_3 = 0.63171$

$R = 0.44501$

Unit. $AB := 1$ **Given.** $N_1 := .89818$ $N_2 := 1.90551$ $N_3 := .63171$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

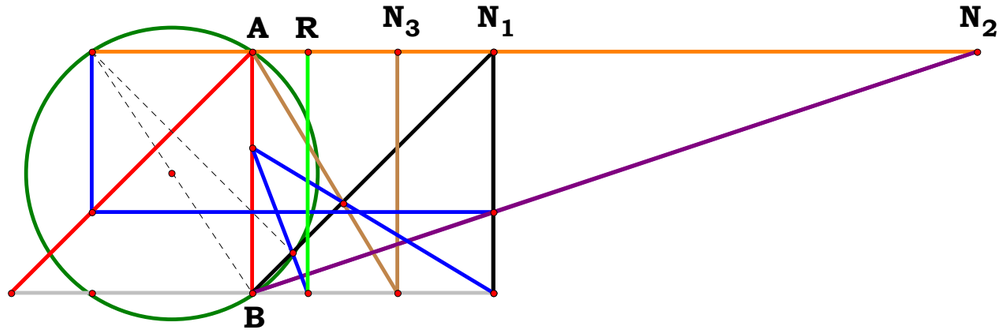
Descriptions.

$$AC := \frac{N_2 - N_1}{N_2} \qquad HJ := \frac{N_3}{N_1 + N_3} \qquad BJ := N_1 \cdot HJ$$

$$BN_1 := \sqrt{AB^2 + N_1^2} \qquad FN_1 := \frac{N_1 \cdot (N_1 + AC)}{BN_1}$$

$$BF := BN_1 - FN_1 \qquad BG := \frac{N_1 \cdot BF}{BN_1} \qquad FG := \frac{BG}{N_1}$$

$$BE := \frac{HJ \cdot N_1}{N_1 - BJ} \qquad R := \frac{BE \cdot BG}{BE - FG} \qquad R = 0.445008$$



$N_1 = 1.00000$

$N_2 = 3.00000$

$N_3 = 0.60000$

$R = 0.23077$

$$\frac{N_1 \cdot N_3 \cdot ((N_1^2 - N_1 \cdot N_2) + N_2)}{N_2 \cdot N_3 \cdot (N_1^2 + 1) - N_1 \cdot ((N_1^2 - N_1 \cdot N_2) + N_2)} - R = 0.00000$$

Definitions.

$$R - \frac{N_1 \cdot N_3 \cdot \left(N_1^2 - N_1 \cdot N_2 + N_2\right)}{N_2 \cdot N_3 \cdot \left(N_1^2 + 1\right) - N_1 \cdot \left(N_1^2 - N_1 \cdot N_2 + N_2\right)} = 0$$

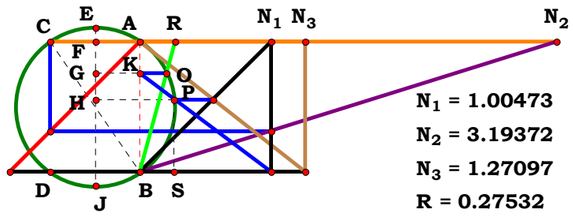
$$N_1 - \frac{N_u}{A} = 0 \qquad N_2 - \frac{N_u}{B} = 0 \qquad N_3 - \frac{N_u}{C} = 0$$

$$R - \frac{N_u \cdot \left[A^2 - N_u \cdot (A - B)\right]}{A^3 - C \cdot A^2 + A \cdot N_u^2 + C \cdot N_u \cdot (A - B)} = 0$$

$$N_1 - \frac{X}{o} = 0 \qquad N_2 - \frac{Y}{p} = 0 \qquad N_3 - \frac{Z}{q} = 0$$

$$R - \frac{N_1 \cdot N_3 \cdot \left(N_1^2 - N_1 \cdot N_2 + N_2\right)}{N_2 \cdot N_3 \cdot \left(N_1^2 + 1\right) - N_1 \cdot \left(N_1^2 - N_1 \cdot N_2 + N_2\right)} = 0$$

4RST8AB6R5



$N_1 = 1.00473$
$N_2 = 3.19372$
$N_3 = 1.27097$
$R = 0.27532$

Unit. $AB := 1$ **Given.** $N_1 := 1.00473$ $N_2 := 3.19372$ $N_3 := 1.27097$

Descriptions.

$$AC := \frac{N_2 - N_1}{N_2} \qquad EJ := \sqrt{AB^2 + AC^2}$$

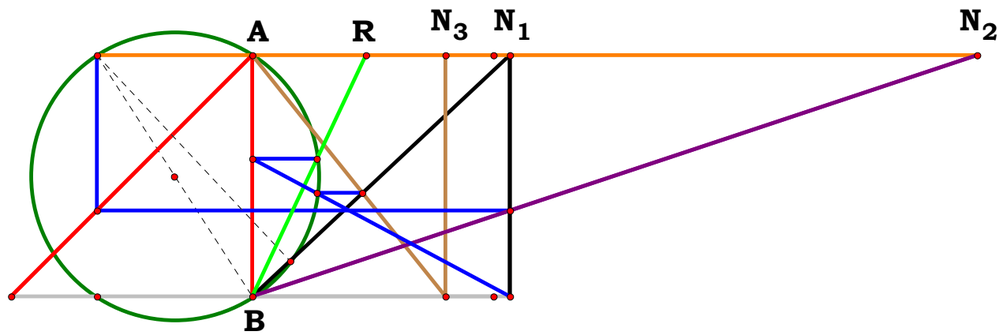
$$AF := \frac{AC}{2} \qquad EF := \frac{EJ - AB}{2}$$

$$PS := \frac{N_3}{N_1 + N_3} \qquad HJ := PS + EF$$

$$HP := \sqrt{HJ \cdot (EJ - HJ)} \qquad BS := HP - AF$$

$$BK := \frac{PS \cdot N_1}{N_1 - BS} \qquad GJ := BK + EF$$

$$GO := \sqrt{GJ \cdot (EJ - GJ)} \qquad KO := GO - AF$$



$N_1 = 1.06798$ $AB = 1.00000$ $EF = 0.09472$ $BS = 0.26837$ $KO = 0.26834$
$N_2 = 3.00000$ $AC = 0.64401$ $PS = 0.42827$ $BK = 0.57201$ $R - \frac{KO}{BK} = 0.00000$
$N_3 = 0.80000$ $EJ = 1.18943$ $HJ = 0.52299$ $GJ = 0.66673$
$R = 0.46911$ $AF = 0.32200$ $HP = 0.59037$ $GO = 0.59034$

$$R := \frac{KO}{BK} \qquad R = 0.275323$$

Definitions.

$$A := \sqrt{AC^2 \cdot (N_1 + N_3)^2 + 4 \cdot N_1 \cdot N_3} \qquad B := \sqrt{(N_1 + N_3)^2} \qquad C := \sqrt{(N_1 + N_3)^2 \cdot [A - B \cdot (AC + 2 \cdot N_1)]^2}$$

$$D := \sqrt{AC^2 \cdot (N_1 + N_3)^2 \cdot (A - AC \cdot B - 2 \cdot B \cdot N_1)^2 - 8 \cdot B \cdot N_1 \cdot N_3 \cdot [(N_1 + N_3) \cdot (A - AC \cdot B) - 2 \cdot B \cdot N_1^2]}$$

$$R - \frac{(AC \cdot C - D) \cdot (N_1 + N_3) \cdot (A - AC \cdot B - 2 \cdot B \cdot N_1)}{4 \cdot B \cdot C \cdot N_1 \cdot N_3} = 0$$

$$AC - \frac{N_2 - N_1}{N_2} = 0 \qquad EJ - \frac{\sqrt{N_1^{\,2} - 2 \cdot N_1 \cdot N_2 + 2 \cdot N_2^{\,2}}}{N_2} = 0$$

$$AF - \frac{N_2 - N_1}{2 \cdot N_2} = 0 \qquad EF - \frac{\sqrt{N_1^{\,2} - 2 \cdot N_1 \cdot N_2 + 2 \cdot N_2^{\,2}} - N_2}{2 \cdot N_2} = 0$$

$$PS - \frac{N_3}{N_1 + N_3} = 0 \qquad HJ - \frac{\sqrt{N_1^{\,2} - 2 \cdot N_1 \cdot N_2 + 2 \cdot N_2^{\,2}} \cdot (N_1 + N_3) - N_1 \cdot N_2 + N_2 \cdot N_3}{2 \cdot N_2 \cdot (N_1 + N_3)} = 0$$

$$HP - \frac{\sqrt{N_1^{\,4} - 2 \cdot N_1^{\,3} \cdot N_2 + 2 \cdot N_1^{\,3} \cdot N_3 + N_1^{\,2} \cdot N_2^{\,2} - 4 \cdot N_1^{\,2} \cdot N_2 \cdot N_3 + N_1^{\,2} \cdot N_3^{\,2} + 6 \cdot N_1 \cdot N_2^{\,2} \cdot N_3 - 2 \cdot N_1 \cdot N_2 \cdot N_3^{\,2} + N_2^{\,2} \cdot N_3^{\,2}}}{2 \cdot N_2 \cdot (N_1 + N_3)} = 0$$

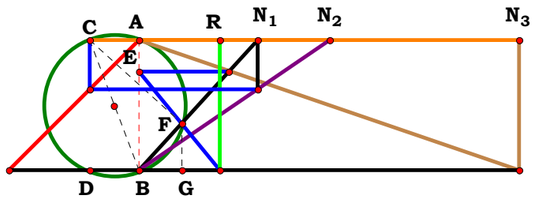
$$BS - (HP - AF) = 0$$

$$BK - \frac{PS \cdot N_1}{N_1 - BS} = 0 \qquad GJ - (BK + EF) = 0$$

$$GO - \sqrt{GJ \cdot (EJ - GJ)} = 0 \qquad KO - (GO - AF) = 0$$

$$R - \frac{KO}{BK} = 0$$

4RST8AB6R8



$N_1 = 0.90787$

$N_2 = 1.45996$

$N_3 = 2.91756$

$R = 0.61896$

Unit. $AB := 1$ Given. $N_1 := .90787$ $N_2 := 1.45996$ $N_3 := 2.91756$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

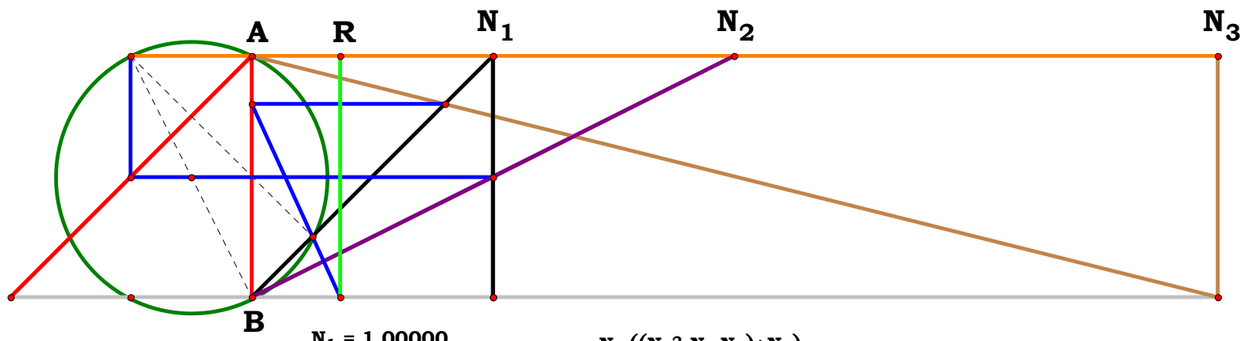
Descriptions.

$$AC := \frac{N_2 - N_1}{N_2} \qquad BE := \frac{N_3}{N_1 + N_3}$$

$$BN_1 := \sqrt{AB^2 + N_1^2} \qquad FN_1 := \frac{N_1 \cdot (N_1 + AC)}{BN_1}$$

$$BF := BN_1 - FN_1 \qquad BG := \frac{N_1 \cdot BF}{BN_1}$$

$$FG := \frac{BG}{N_1} \qquad R := \frac{BG \cdot BE}{BE - FG} \qquad R = 0.618963$$



$N_1 = 1.00000$

$N_2 = 2.00000$

$N_3 = 4.00000$

$R = 0.36364$

$$\frac{N_3 \cdot ((N_1^2 - N_1 \cdot N_2) + N_2)}{(N_3 \cdot ((N_2 - N_1) + N_1 \cdot N_2) + N_1 \cdot N_2) - N_1^2 - N_2} - R = 0.00000$$

Definitions.

$$R - \frac{N_3 \cdot (N_1^2 - N_1 \cdot N_2 + N_2)}{N_3 \cdot (N_2 - N_1 + N_1 \cdot N_2) + N_1 \cdot N_2 - N_1^2 - N_2} = 0$$

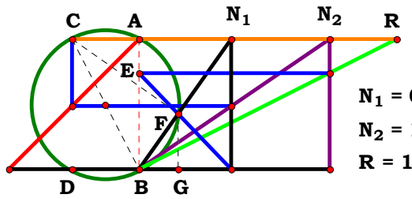
$$N_1 - \frac{N_u}{A} = 0 \qquad N_2 - \frac{N_u}{B} = 0 \qquad N_3 - \frac{N_u}{C} = 0$$

$$R - \frac{N_u \cdot (A^2 - N_u \cdot A + B \cdot N_u)}{A \cdot (N_u^2 - A \cdot C) + N_u \cdot (A + C) \cdot (A - B)} = 0$$

$$N_1 - \frac{X}{o} = 0 \qquad N_2 - \frac{Y}{p} = 0 \qquad N_3 - \frac{Z}{q} = 0$$

$$R - \frac{Z \cdot (p \cdot X^2 - Y \cdot X \cdot o + Y \cdot o^2)}{Y \cdot o \cdot (X \cdot Z + X \cdot q + Z \cdot o - o \cdot q) - X \cdot p \cdot (X \cdot q + Z \cdot o)} = 0$$

4RST8AB6R9



$N_1 = 0.70447$
$N_2 = 1.45996$
$R = 1.97774$

Unit. $AB := 1$ Given. $N_1 := .70447$ $N_2 := 1.45996$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $Y := 20$ $Z := 19$ $p := \frac{Y}{N_1}$ $q := \frac{Z}{N_2}$

Descriptions.

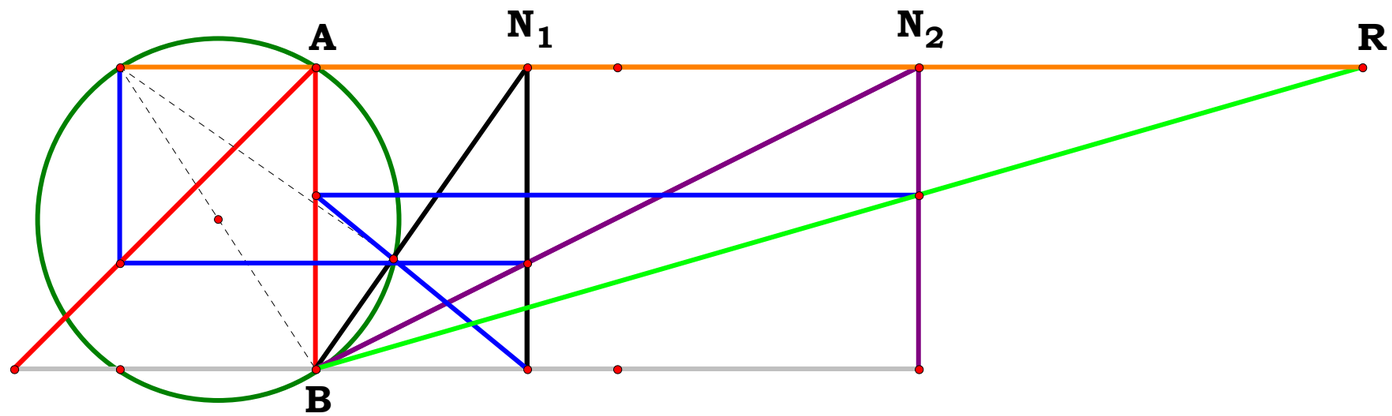
$AC := \frac{N_2 - N_1}{N_2}$ $BN_1 := \sqrt{AB^2 + N_1^2}$

$FN_1 := \frac{N_1 \cdot (N_1 + AC)}{BN_1}$ $BF := BN_1 - FN_1$

$BG := \frac{N_1 \cdot BF}{BN_1}$ $FG := \frac{BG}{N_1}$

$BE := \frac{FG \cdot N_1}{N_1 - BG}$ $R := \frac{N_2}{BE}$

$R = 1.97774$



Definitions.

$$R - \frac{N_1 \cdot N_2 \cdot (N_2 - N_1 + N_1 \cdot N_2)}{N_1^2 - N_1 \cdot N_2 + N_2} = 0$$

$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$

$$R - \frac{N_u^2 \cdot (A - B + N_u)}{B \cdot (A^2 - N_u \cdot A + B \cdot N_u)} = 0$$

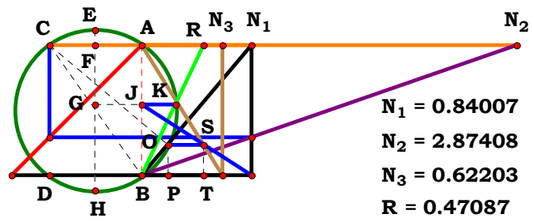
$N_1 - \frac{Y}{p} = 0$ $N_2 - \frac{Z}{q} = 0$

$$R - \frac{Y \cdot Z \cdot (Y \cdot Z - Y \cdot q + Z \cdot p)}{q \cdot (q \cdot Y^2 - Z \cdot Y \cdot p + Z \cdot p^2)} = 0$$

$N_1 = 0.70000$
$N_2 = 2.00000$
$R = 3.46789$

$$\frac{N_1 \cdot N_2 \cdot ((N_2 - N_1) + N_1 \cdot N_2)}{(N_1^2 - N_1 \cdot N_2) + N_2} - R = 0.00000$$

4RST8AB6R10



$N_1 = 0.84007$
$N_2 = 2.87408$
$N_3 = 0.62203$
$R = 0.47087$

Unit. $AB := 1$ Given. $N_1 := .84007$ $N_2 := 2.87408$ $N_3 := .62203$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

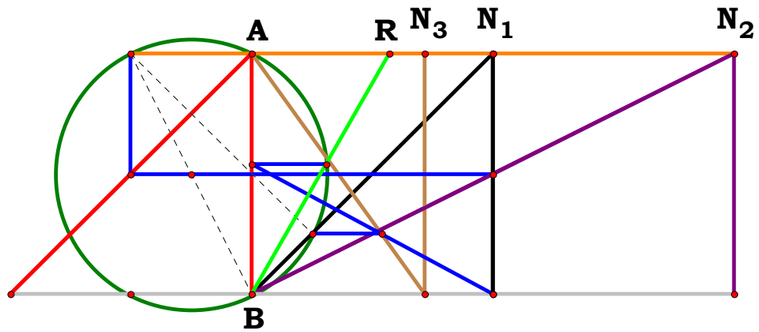
$AC := \frac{N_2 - N_1}{N_2}$ $EH := \sqrt{AB^2 + AC^2}$ $AF := \frac{AC}{2}$

$EF := \frac{EH - AB}{2}$ $BN_1 := \sqrt{AB^2 + N_1^2}$ $ON_1 := \frac{N_1 \cdot (N_1 + AC)}{BN_1}$

$BO := BN_1 - ON_1$ $BP := \frac{N_1 \cdot BO}{BN_1}$ $OP := \frac{BP}{N_1}$

$BT := N_3 \cdot (AB - OP)$ $BJ := \frac{OP \cdot N_1}{N_1 - BT}$ $GH := BJ + EF$

$GK := \sqrt{GH \cdot (EH - GH)}$ $R := \frac{GK - AF}{BJ}$ $R = 0.470865$



$N_1 = 1.00000$
$N_2 = 2.00000$
$N_3 = 0.71624$
$R = 0.56940$

$$\frac{\sqrt{((N_3^2 \cdot (N_1 - N_2)^2 \cdot ((N_2 - N_1) + N_1 \cdot N_2)^2) + (N_2^2 \cdot ((N_2 - N_1 - N_1^2 \cdot N_2) + N_1^3 + 2 \cdot N_1 \cdot N_2)^2)) - (2 \cdot N_2 \cdot N_3 \cdot ((N_2 - N_1) + N_1 \cdot N_2) \cdot ((N_2^2 \cdot ((N_1^2 - 2 \cdot N_1) + 3) - (2 \cdot N_1 \cdot N_2 \cdot ((N_1^2 - N_1) + 1))) + (N_1^2 \cdot (N_1^2 + 1))))} + (N_1 - N_2) \cdot ((N_2 + N_1^2 \cdot N_2 + N_1 \cdot N_3) - N_2 \cdot N_3 - N_1 \cdot N_2 \cdot N_3)}{(2 \cdot N_2 \cdot ((N_1^2 - N_1 \cdot N_2) + N_2))} - R = 0.00000$$

Definitions.

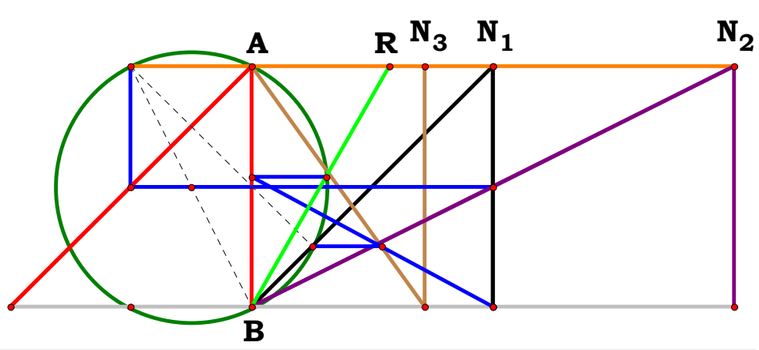
$$R - \frac{\sqrt{\begin{matrix} N_3^2 \cdot (N_1 - N_2)^2 \cdot (N_2 - N_1 + N_1 \cdot N_2)^2 + N_2^2 \cdot (N_2 - N_1 - N_1^2 \cdot N_2 + N_1^3 + 2 \cdot N_1 \cdot N_2)^2 \ \ldots \\ + \ -2 \cdot N_2 \cdot N_3 \cdot (N_2 - N_1 + N_1 \cdot N_2) \cdot [N_2^2 \cdot (N_1^2 - 2 \cdot N_1 + 3) - 2 \cdot N_1 \cdot N_2 \cdot (N_1^2 - N_1 + 1) + N_1^2 \cdot (N_1^2 + 1)] \end{matrix}} + (N_1 - N_2) \cdot (N_2 + N_1^2 \cdot N_2 + N_1 \cdot N_3 - N_2 \cdot N_3 - N_1 \cdot N_2 \cdot N_3)}{2 \cdot N_2 \cdot (N_1^2 - N_1 \cdot N_2 + N_2)} = 0$$

$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$

$$R - \frac{(A - B) \cdot [N_u^2 \cdot (A - C) + N_u \cdot A \cdot (A - B) - A^2 \cdot C] + \sqrt{\begin{matrix} C^2 \cdot [A^2 \cdot (A - B + 2 \cdot N_u) - N_u^2 \cdot (A - B)]^2 + A^2 \cdot N_u^2 \cdot (A - B)^2 \cdot (A - B + N_u)^2 \ \ldots \\ + \ -2 \cdot C \cdot A \cdot N_u \cdot (A - B + N_u) \cdot [N_u^2 \cdot (A - B)^2 - 2 \cdot N_u \cdot A^2 \cdot (A - B) + A^2 \cdot (3 \cdot A^2 - 2 \cdot A \cdot B + B^2)] \end{matrix}}}{2 \cdot A \cdot C \cdot (A^2 - N_u \cdot A + B \cdot N_u)} = 0$$

$$N_1 - \frac{X}{o} = 0 \qquad N_2 - \frac{Y}{p} = 0 \qquad N_3 - \frac{Z}{q} = 0$$

$$R - \frac{\begin{array}{l}\sqrt{\begin{array}{l}Z^2\cdot o^2\cdot (X\cdot Y - X\cdot p + Y\cdot o)^2\cdot (X\cdot p - Y\cdot o)^2 \ \ldots \\ +\ -2\cdot Z\cdot Y\cdot o\cdot q\cdot (X\cdot Y - X\cdot p + Y\cdot o)\cdot \left(\begin{array}{l} X^4\cdot p^2 - 2\cdot X^3\cdot Y\cdot o\cdot p + X^2\cdot Y^2\cdot o^2 \ \ldots \\ +\ 2\cdot X^2\cdot Y\cdot o^2\cdot p + X^2\cdot o^2\cdot p^2 - 2\cdot X\cdot Y^2\cdot o^3 - 2\cdot X\cdot Y\cdot o^3\cdot p + 3\cdot Y^2\cdot o^4 \end{array}\right) \ldots \\ +\ Y^2\cdot q^2\cdot \left(Y\cdot o^3 + X^3\cdot p + 2\cdot X\cdot Y\cdot o^2 - X^2\cdot Y\cdot o - X\cdot o^2\cdot p\right)^2 \end{array}} - Z\cdot o\cdot (X\cdot Y - X\cdot p + Y\cdot o)\cdot (X\cdot p - Y\cdot o) \ \ldots \\ +\ Y\cdot q\cdot \left(X^2 + o^2\right)\cdot (X\cdot p - Y\cdot o)\end{array}}{2\cdot Y\cdot o\cdot q\cdot \left(p\cdot X^2 - Y\cdot X\cdot o + Y\cdot o^2\right)} = 0$$



$N_1 = 1.00000$

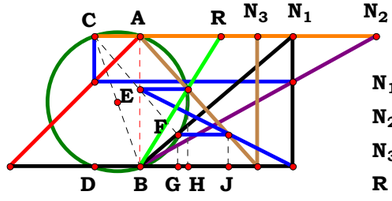
$N_2 = 2.00000$

$N_3 = 0.71624$

$R = 0.56940$

$$\frac{\sqrt{((N_3^2\cdot(N_1-N_2)^2\cdot((N_2-N_1)+N_1\cdot N_2)^2)+(N_2^2\cdot((N_2-N_1-N_1^2\cdot N_2)+N_1^3+2\cdot N_1\cdot N_2)^2))-(2\cdot N_2\cdot N_3\cdot((N_2-N_1)+N_1\cdot N_2)\cdot((N_2^2\cdot((N_1^2-2\cdot N_1)+3)-(2\cdot N_1\cdot N_2\cdot((N_1^2-N_1)+1)))+(N_1^2\cdot(N_1^2+1))))}+(N_1-N_2)\cdot((N_2+N_1^2\cdot N_2+N_1\cdot N_3)-N_2\cdot N_3-N_1\cdot N_2\cdot N_3)}{(2\cdot N_2\cdot((N_1^2-N_1\cdot N_2)+N_2))} - R = 0.00000$$

4RST8AB6R11



$N_1 = 1.16939$
$N_2 = 1.80865$
$N_3 = 0.90291$
$R = 0.62452$

Unit. $AB := 1$ Given. $N_1 := 1.16939$ $N_2 := 1.80865$ $N_3 := .90291$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

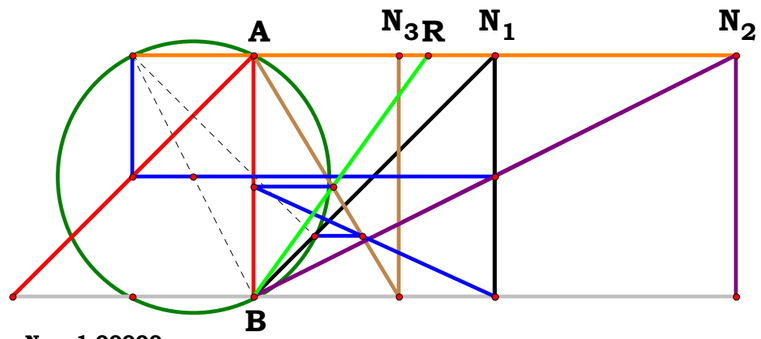
$$AC := \frac{N_2 - N_1}{N_2} \qquad BN_1 := \sqrt{AB^2 + N_1{}^2}$$

$$FN_1 := \frac{N_1 \cdot (N_1 + AC)}{BN_1} \qquad BF := BN_1 - FN_1$$

$$BG := \frac{N_1 \cdot BF}{BN_1} \qquad FG := \frac{BG}{N_1}$$

$$BJ := N_3 \cdot (AB - FG) \qquad BE := \frac{FG \cdot N_1}{N_1 - BJ}$$

$$BH := N_3 \cdot (AB - BE) \qquad R := \frac{BH}{BE} \qquad R = 0.624537$$



$N_1 = 1.00000$
$N_2 = 2.00000$
$N_3 = 0.60000$
$R = 0.72000$

$$\frac{N_3 \cdot (N_1 - N_3) \cdot ((N_2 - N_1) + N_1 \cdot N_2)}{(N_1{}^2 - N_1 \cdot N_2) + N_2} - R = 0.00000$$

Definitions.

$$R - \frac{N_3 \cdot (N_1 - N_3) \cdot (N_2 - N_1 + N_1 \cdot N_2)}{N_1{}^2 - N_1 \cdot N_2 + N_2} = 0$$

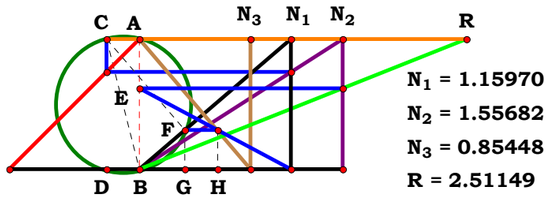
$$N_1 - \frac{N_u}{A} = 0 \qquad N_2 - \frac{N_u}{B} = 0 \qquad N_3 - \frac{N_u}{C} = 0$$

$$R - \frac{N_u{}^2 \cdot (A - C) \cdot (B - A - N_u)}{C^2 \cdot \left[A^2 - N_u \cdot (A - B)\right]} = 0$$

$$N_1 - \frac{X}{o} = 0 \qquad N_2 - \frac{Y}{p} = 0 \qquad N_3 - \frac{Z}{q} = 0$$

$$R - \frac{Z \cdot (X \cdot q - Z \cdot o) \cdot (X \cdot Y - X \cdot p + Y \cdot o)}{q^2 \cdot (p \cdot X^2 - Y \cdot X \cdot o + Y \cdot o^2)} = 0$$

4RST8AB6R12



$N_1 = 1.15970$

$N_2 = 1.55682$

$N_3 = 0.85448$

$R = 2.51149$

Unit. $AB := 1$ **Given.** $N_1 := 1.15970$ $N_2 := 1.55682$ $N_3 := .85448$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

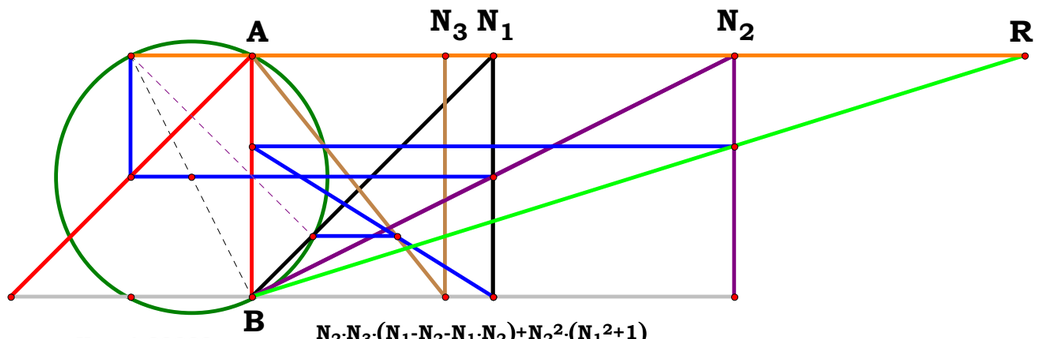
$$AC := \frac{N_2 - N_1}{N_2} \qquad BN_1 := \sqrt{AB^2 + {N_1}^2}$$

$$FN_1 := \frac{N_1 \cdot (N_1 + AC)}{BN_1} \qquad BF := BN_1 - FN_1$$

$$BG := \frac{N_1 \cdot BF}{BN_1} \qquad FG := \frac{BG}{N_1}$$

$$BH := N_3 \cdot (AB - FG) \qquad BE := \frac{FG \cdot N_1}{N_1 - BH}$$

$$R := \frac{N_2}{BE} \qquad R = 2.511501$$



$N_1 = 1.00000$

$N_2 = 2.00000$

$N_3 = 0.80000$

$R = 3.20000$

$$\frac{N_2 \cdot N_3 \cdot (N_1 - N_2 - N_1 \cdot N_2) + {N_2}^2 \cdot ({N_1}^2 + 1)}{({N_1}^2 - N_1 \cdot N_2) + N_2} - R = 0.00000$$

Definitions.

$$R - \frac{N_2 \cdot N_3 \cdot (N_1 - N_2 - N_1 \cdot N_2) + {N_2}^2 \cdot ({N_1}^2 + 1)}{{N_1}^2 - N_1 \cdot N_2 + N_2} = 0$$

$$N_1 - \frac{N_u}{A} = 0 \qquad N_2 - \frac{N_u}{B} = 0 \qquad N_3 - \frac{N_u}{C} = 0$$

$$R - \frac{C \cdot N_u \cdot (A^2 + {N_u}^2) - A \cdot {N_u}^2 \cdot (A - B + N_u)}{B \cdot C \cdot \left[A^2 - N_u \cdot (A - B)\right]} = 0$$

$$N_1 - \frac{X}{o} = 0 \qquad N_2 - \frac{Y}{p} = 0 \qquad N_3 - \frac{Z}{q} = 0$$

$$R - \frac{Y^2 \cdot q \cdot (X^2 + o^2) - Y \cdot Z \cdot o \cdot (X \cdot Y - X \cdot p + Y \cdot o)}{p \cdot q \cdot (p \cdot X^2 - Y \cdot X \cdot o + Y \cdot o^2)} = 0$$

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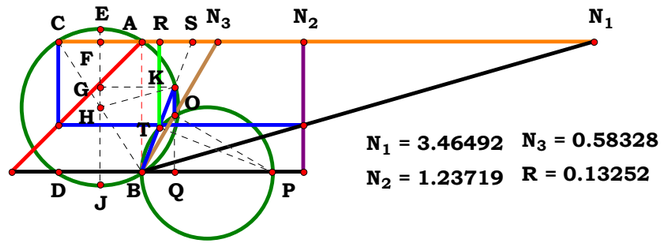


Unit. $AB := 1$ Given. $N_1 := 3.46492$ $N_2 := 1.23719$ $N_3 := .58328$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

$AC := \frac{N_1 - N_2}{N_1}$ $EJ := \sqrt{AB^2 + AC^2}$

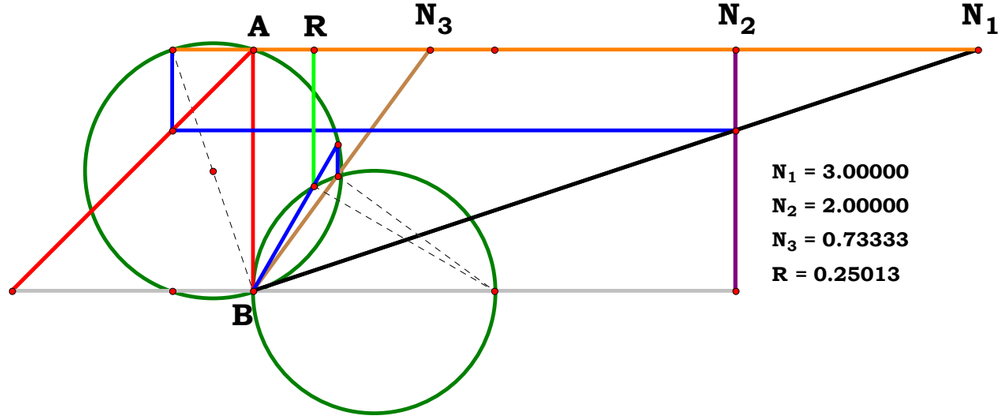
$AF := \frac{AC}{2}$ $EF := \frac{EJ - AB}{2}$

$BQ := \frac{N_3^2}{N_3^2 + 1}$ $GK := BQ + AF$

$HK := \frac{EJ}{2}$ $GH := \sqrt{HK^2 - GK^2}$

$FG := HK - (GH + EF)$ $AS := \frac{GK - AF}{AB - FG}$

$R := \frac{AS^2}{AS^2 + 1}$ $R = 0.132516$



$$\frac{(2 \cdot N_1 \cdot N_3^4)}{(N_3^2+1) \cdot ((N_1-(N_1 \cdot N_3^2))+(2 \cdot N_2 \cdot N_3^2)+\sqrt{N_1} \cdot \sqrt{(N_1-2 \cdot N_3^2 \cdot (N_1-2 \cdot N_2))+N_3^4 \cdot (4 \cdot N_2-7 \cdot N_1)})} - R = 0.00000$$

Definitions.

$$R - \frac{2 \cdot N_3^4 \cdot \sqrt{\left(N_3^2+1\right)^2}}{\left(N_3^2+1\right) \cdot \left[\sqrt{N_3^4+2 \cdot N_3^2+1} \cdot \left(N_3^2-2 \cdot AC \cdot N_3^2+1\right)+\sqrt{2 \cdot N_3^2-3 \cdot N_3^4-4 \cdot AC \cdot N_3^2-4 \cdot AC \cdot N_3^4+1} \cdot \left(N_3^2+1\right)\right]} = 0$$

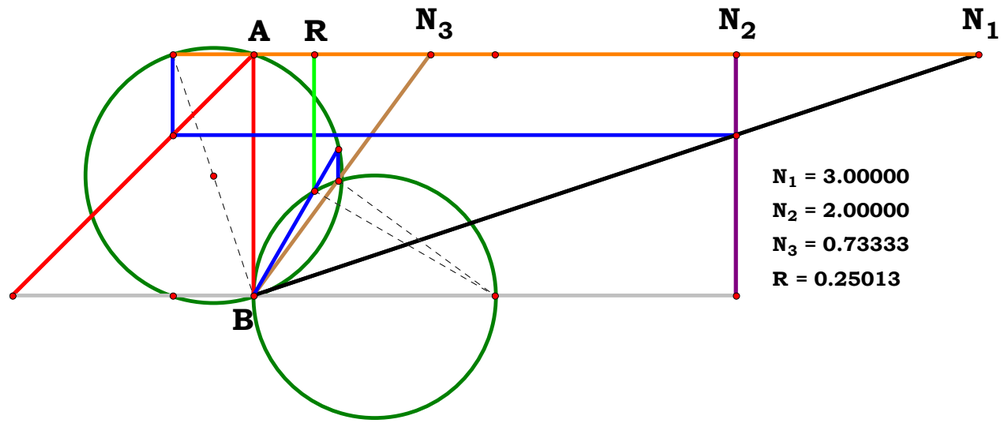
$$R - \frac{2 \cdot N_1 \cdot N_3^4}{\left(N_3^2+1\right) \cdot \left[N_1-N_1 \cdot N_3^2+2 \cdot N_2 \cdot N_3^2+\sqrt{N_1} \cdot \sqrt{N_1-2 \cdot N_3^2 \cdot \left(N_1-2 \cdot N_2\right)+N_3^4 \cdot \left(4 \cdot N_2-7 \cdot N_1\right)}\right]} = 0$$

$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$

$$R - \frac{2 \cdot B \cdot \left(\sqrt{N_u}\right)^9 \cdot \sqrt{A \cdot B}}{\left(C^2+N_u^2\right) \cdot \left[\sqrt{N_u} \cdot \sqrt{A \cdot B} \cdot \left(B \cdot C^2+2 \cdot A \cdot N_u^2-B \cdot N_u^2\right)+\sqrt{A} \cdot B \cdot \sqrt{N_u^5 \cdot (4 \cdot A-7 \cdot B)+B \cdot C^4 \cdot N_u-2 \cdot C^2 \cdot N_u^3 \cdot (B-2 \cdot A)}\right]} = 0$$

$$N_1 - \frac{X}{o} = 0 \quad N_2 - \frac{Y}{p} = 0 \quad N_3 - \frac{Z}{q} = 0 \qquad R = 0.132516$$

$$R - \frac{2 \cdot X \cdot Z^4 \cdot p \cdot \sqrt{o \cdot p}}{\left(Z^2 + q^2\right) \cdot \left[\sqrt{X} \cdot \sqrt{o} \cdot p \cdot \sqrt{4 \cdot Y \cdot Z^2 \cdot o \cdot \left(Z^2 + q^2\right) - X \cdot p \cdot \left(7 \cdot Z^4 + 2 \cdot Z^2 \cdot q^2 - q^4\right)} - \sqrt{o \cdot p} \cdot \left(X \cdot Z^2 \cdot p - 2 \cdot Y \cdot Z^2 \cdot o - X \cdot p \cdot q^2\right)\right]} = 0$$



$$\frac{\left(2 \cdot N_1 \cdot N_3^4\right)}{\left(N_3^2+1\right) \cdot \left(\left(N_1-\left(N_1 \cdot N_3^2\right)\right)+\left(2 \cdot N_2 \cdot N_3^2\right)+\sqrt{N_1} \cdot \sqrt{\left(N_1-2 \cdot N_3^2 \cdot \left(N_1-2 \cdot N_2\right)\right)+N_3^4 \cdot \left(4 \cdot N_2-7 \cdot N_1\right)}\right)} - R = 0.00000$$

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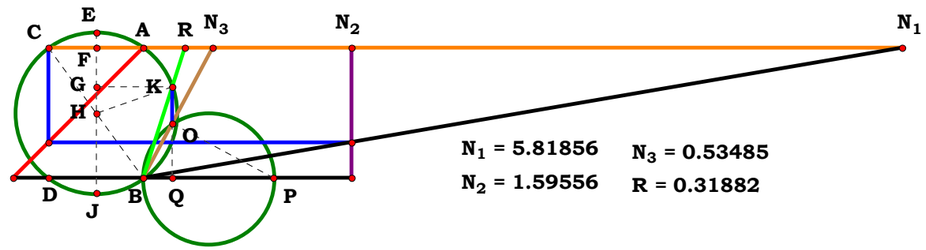


Unit. $AB := 1$ Given. $N_1 := 5.81856$ $N_2 := 1.59556$ $N_3 := .53485$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

$AC := \frac{N_1 - N_2}{N_1}$ $EJ := \sqrt{AB^2 + AC^2}$

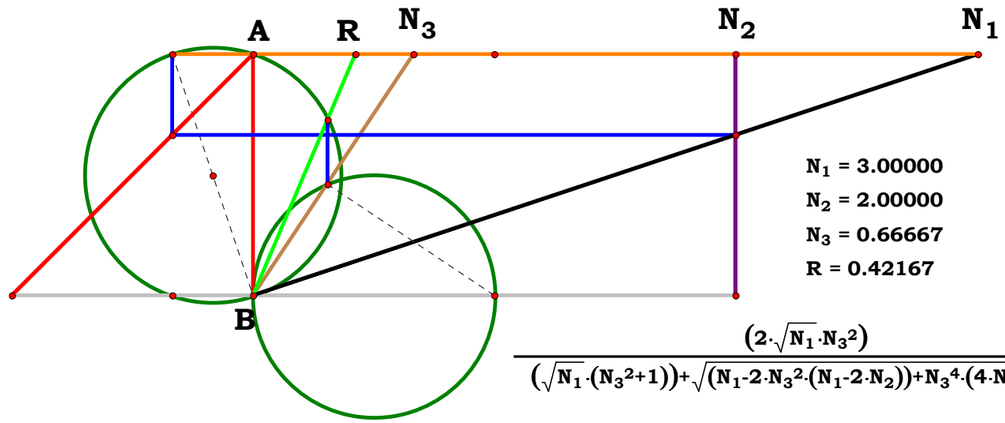
$AF := \frac{AC}{2}$ $EF := \frac{EJ - AB}{2}$

$BQ := \frac{N_3^2}{N_3^2 + 1}$ $GK := BQ + AF$

$HK := \frac{EJ}{2}$ $GH := \sqrt{HK^2 - GK^2}$

$FG := HK - (GH + EF)$ $R := \frac{GK - AF}{AB - FG}$

$R = 0.318811$



$\frac{(2 \cdot \sqrt{N_1} \cdot N_3^2)}{(\sqrt{N_1} \cdot (N_3^2+1)) + \sqrt{(N_1 - 2 \cdot N_3^2 \cdot (N_1 - 2 \cdot N_2)) + N_3^4 \cdot (4 \cdot N_2 - 7 \cdot N_1)}} - R = 0.00000$

Definitions.

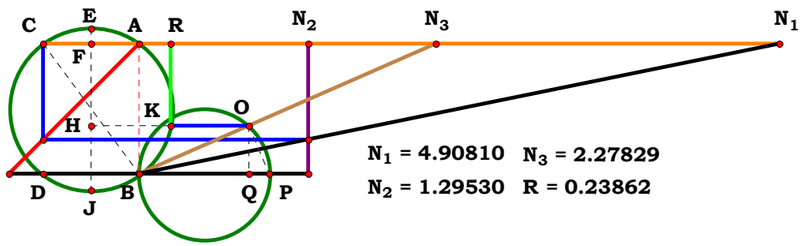
$$R - \frac{2 \cdot N_3^2 \cdot \sqrt{\left(N_3^2 + 1\right)^2}}{\left(N_3^2 + 1\right) \cdot \left[\sqrt{\left(N_3^2 + 1\right)^2} + \sqrt{2 \cdot N_3^2 - 3 \cdot N_3^4 - 4 \cdot AC \cdot N_3^2 - 4 \cdot AC \cdot N_3^4 + 1}\right]} = 0$$

$$R - \frac{2 \cdot \sqrt{N_1} \cdot N_3^2}{\sqrt{N_1} \cdot \left(N_3^2 + 1\right) + \sqrt{N_1 - 2 \cdot N_3^2 \cdot \left(N_1 - 2 \cdot N_2\right) + N_3^4 \cdot \left(4 \cdot N_2 - 7 \cdot N_1\right)}} = 0 \qquad N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0$$

$$R - \frac{2 \cdot \left(\sqrt{N_u}\right)^5 \cdot \sqrt{A \cdot B}}{\sqrt{A \cdot B} \cdot \sqrt{N_u} \cdot \left(C^2 + N_u^2\right) + \sqrt{A} \cdot \sqrt{N_u^5 \cdot (4 \cdot A - 7 \cdot B) + B \cdot C^4 \cdot N_u - 2 \cdot C^2 \cdot N_u^3 \cdot (B - 2 \cdot A)}} = 0 \qquad N_1 - \frac{X}{o} = 0 \quad N_2 - \frac{Y}{p} = 0 \quad N_3 - \frac{Z}{q} = 0$$

$$R - \frac{2 \cdot \sqrt{X} \cdot Z^2 \cdot \sqrt{o \cdot p}}{\sqrt{o} \cdot \sqrt{4 \cdot Y \cdot Z^2 \cdot o \cdot \left(Z^2 + q^2\right) - X \cdot p \cdot \left(7 \cdot Z^4 + 2 \cdot Z^2 \cdot q^2 - q^4\right)} + \sqrt{o \cdot p} \cdot \sqrt{X} \cdot \left(Z^2 + q^2\right)} = 0$$

4RST10AAB1R2



$N_1 = 4.90810 \quad N_3 = 2.27829$

$N_2 = 1.29530 \quad R = 0.23862$

Unit. $AB := 1$ **Given.** $N_1 := 4.90810 \quad N_2 := 1.29530 \quad N_3 := 2.27829$

$N_u := 3 \quad A := \frac{N_u}{N_1} \quad B := \frac{N_u}{N_2} \quad C := \frac{N_u}{N_3}$

$X := 20 \quad Y := 19 \quad Z := 18 \quad o := \frac{X}{N_1} \quad p := \frac{Y}{N_2} \quad q := \frac{Z}{N_3}$

Descriptions.

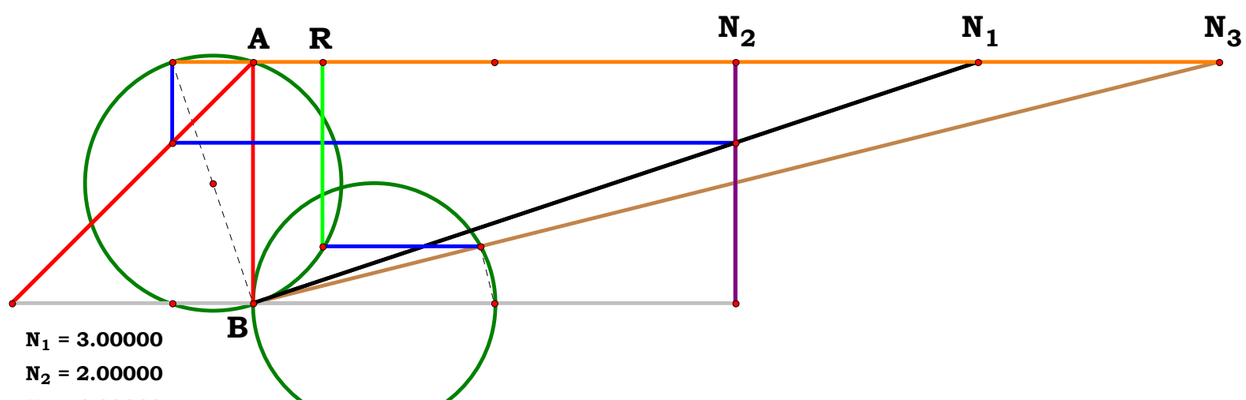
$AC := \frac{N_1 - N_2}{N_1} \qquad EJ := \sqrt{AB^2 + AC^2}$

$AF := \frac{AC}{2} \qquad EF := \frac{EJ - AB}{2}$

$OQ := \frac{N_3}{N_3^2 + 1} \qquad HJ := OQ + EF$

$HK := \sqrt{HJ \cdot (EJ - HJ)} \qquad R := HK - AF$

$R = 0.238618$



$N_1 = 3.00000$

$N_2 = 2.00000$

$N_3 = 4.00000$

$R = 0.28908$

$\frac{\sqrt{(N_3^4 \cdot (N_1 - N_2)^2 + 4 \cdot N_1^2 \cdot N_3 \cdot (N_3^2 + 1)) - N_2 \cdot (2 \cdot N_3^2 + 1) \cdot (2 \cdot N_1 - N_2) - N_1^2 \cdot (2 \cdot N_3^2 - 1)} - (N_3^2 + 1) \cdot (N_1 - N_2)}{2 \cdot N_1 \cdot (N_3^2 + 1)} - R = 0.00000$

Definitions.

$$R - \frac{\sqrt{AC^2 \cdot N_3^4 + 2 \cdot AC^2 \cdot N_3^2 + AC^2 + 4 \cdot N_3^3 - 4 \cdot N_3^2 + 4 \cdot N_3} - AC \cdot \sqrt{N_3^4 + 2 \cdot N_3^2 + 1}}{2 \cdot \sqrt{N_3^4 + 2 \cdot N_3^2 + 1}} = 0$$

$$R - \frac{\sqrt{N_3^4 \cdot (N_1 - N_2)^2 + 4 \cdot N_1^2 \cdot N_3 \cdot (N_3^2 + 1) - N_2 \cdot (2 \cdot N_3^2 + 1) \cdot (2 \cdot N_1 - N_2) - N_1^2 \cdot (2 \cdot N_3^2 - 1)} - (N_3^2 + 1) \cdot (N_1 - N_2)}{2 \cdot N_1 \cdot (N_3^2 + 1)} = 0 \qquad N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0$$

$$R - \frac{\sqrt{B^2 \cdot (C^4 + 4 \cdot C^3 \cdot N_u - 2 \cdot C^2 \cdot N_u^2 + 4 \cdot C \cdot N_u^3 + N_u^4) + A \cdot (C^2 + N_u^2)^2 \cdot (A - 2 \cdot B) + (C^2 + N_u^2) \cdot (A - B)}}{2 \cdot B \cdot (C^2 + N_u^2)} = 0 \qquad N_1 - \frac{X}{o} = 0 \quad N_2 - \frac{Y}{p} = 0 \quad N_3 - \frac{Z}{q} = 0$$

$$R - \frac{\sqrt{Y \cdot o \cdot (Z^2 + q^2)^2 \cdot (Y \cdot o - 2 \cdot X \cdot p) + X^2 \cdot p^2 \cdot (Z^4 + 4 \cdot Z^3 \cdot q - 2 \cdot Z^2 \cdot q^2 + 4 \cdot Z \cdot q^3 + q^4)} - (Z^2 + q^2) \cdot (X \cdot p - Y \cdot o)}{2 \cdot X \cdot p \cdot (Z^2 + q^2)} = 0$$

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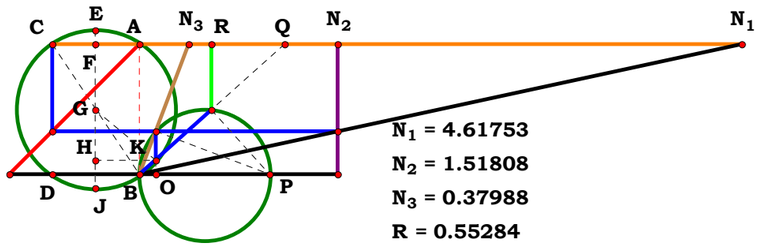


Unit. $AB := 1$ Given. $N_1 := 4.61753$ $N_2 := 1.51808$ $N_3 := .37988$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

$AC := \frac{N_1 - N_2}{N_1}$ $EJ := \sqrt{AB^2 + AC^2}$

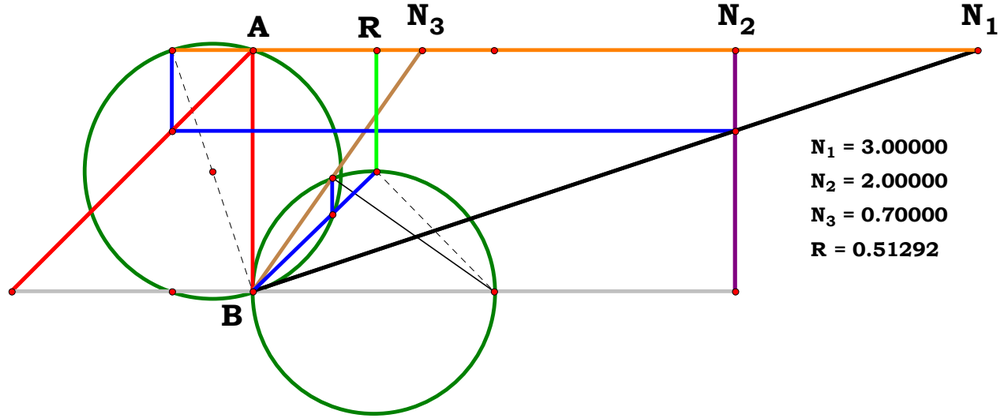
$AF := \frac{AC}{2}$ $EF := \frac{EJ - AB}{2}$

$BO := \frac{N_3^2}{N_3^2 + 1}$ $GK := \frac{EJ}{2}$

$HK := AF + BO$ $GH := \sqrt{GK^2 - HK^2}$

$KO := GK - (GH + EF)$ $AQ := \frac{BO}{KO}$

$R := \frac{AQ^2}{AQ^2 + 1}$ $R = 0.552845$



$\frac{(2 \cdot N_1 \cdot N_3^4)}{(N_3^2+1) \cdot (((N_1 - N_1 \cdot N_3^2) + 2 \cdot N_2 \cdot N_3^2) - \sqrt{(N_1 \cdot N_3^4 \cdot (4 \cdot N_2 - 7 \cdot N_1) - 2 \cdot N_1 \cdot N_3^2 \cdot (N_1 - 2 \cdot N_2)) + N_1^2})} - R = 0.00000$

Definitions.

$$R - \frac{4 \cdot N_3^4}{2 \cdot \left(N_3^2 + 1\right) \cdot \left(N_3^2 - 2 \cdot AC \cdot N_3^2 + 1\right) - 2 \cdot \sqrt{\left(N_3^2 + 1\right)^2} \cdot \sqrt{2 \cdot N_3^2 - 3 \cdot N_3^4 - 4 \cdot AC \cdot N_3^2 - 4 \cdot AC \cdot N_3^4 + 1}} = 0$$

$$R - \frac{2 \cdot N_1 \cdot N_3^4}{\left(N_3^2 + 1\right) \cdot \left[N_1 - N_1 \cdot N_3^2 + 2 \cdot N_2 \cdot N_3^2 - \sqrt{N_1 \cdot N_3^4 \cdot \left(4 \cdot N_2 - 7 \cdot N_1\right) - 2 \cdot N_1 \cdot N_3^2 \cdot \left(N_1 - 2 \cdot N_2\right) + N_1^2}\right]} = 0$$

$$R - \frac{2 \cdot \left(\sqrt{B}\right)^2 \cdot N_u^4}{\left(C^2 + N_u^2\right) \cdot \left[B \cdot C^2 - \sqrt{B} \cdot \sqrt{N_u^4 \cdot (4 \cdot A - 7 \cdot B) + B \cdot C^4 - 2 \cdot C^2 \cdot N_u^2 \cdot (B - 2 \cdot A)} + N_u^2 \cdot (2 \cdot A - B)\right]} = 0$$

$$R - \frac{2 \cdot X \cdot Z^4 \cdot p}{\left(Z^2 + q^2\right) \cdot \left[2 \cdot Y \cdot Z^2 \cdot o - X \cdot Z^2 \cdot p + X \cdot p \cdot q^2 - \sqrt{p} \cdot \sqrt{4 \cdot Y \cdot X \cdot Z^2 \cdot o \cdot \left(Z^2 + q^2\right) - X^2 \cdot p \cdot \left(7 \cdot Z^4 + 2 \cdot Z^2 \cdot q^2 - q^4\right)}\right]} = 0$$

$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$

$N_1 - \frac{X}{o} = 0$ $N_2 - \frac{Y}{p} = 0$ $N_3 - \frac{Z}{q} = 0$

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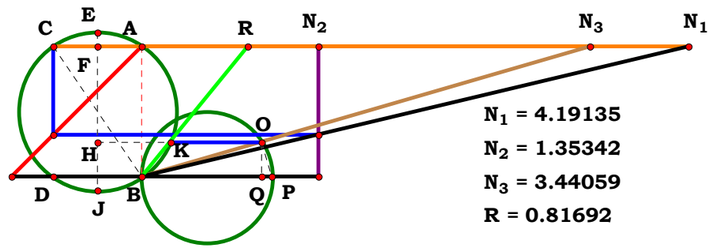


Unit. $AB := 1$ Given. $N_1 := 4.19135$ $N_2 := 1.35342$ $N_3 := 3.44059$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

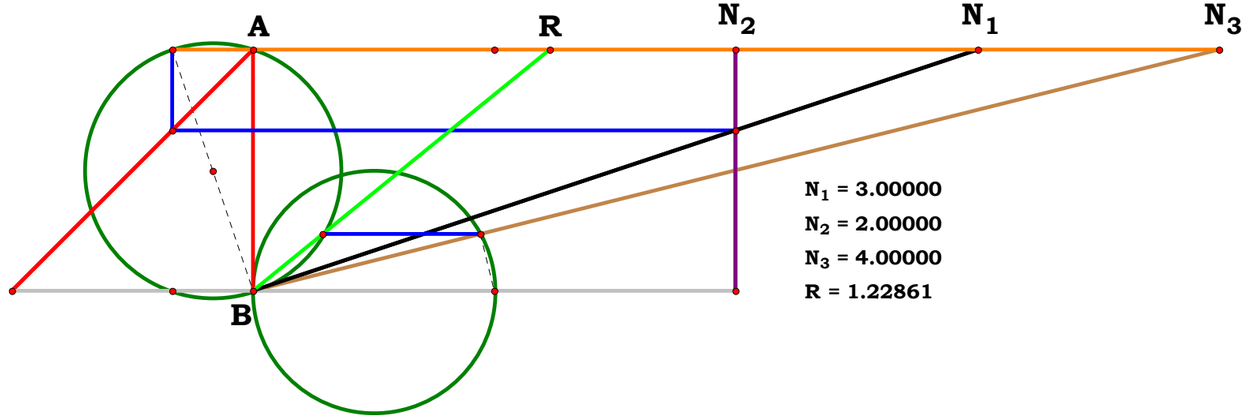
$AC := \frac{N_1 - N_2}{N_1}$ $EJ := \sqrt{AB^2 + AC^2}$

$AF := \frac{AC}{2}$ $EF := \frac{EJ - AB}{2}$

$OQ := \frac{N_3}{N_3^2 + 1}$ $HJ := OQ + EF$

$HK := \sqrt{HJ \cdot (EJ - HJ)}$ $R := \frac{HK - AF}{OQ}$

$R = 0.816925$



Definitions.

$$\frac{\sqrt{((((N_3^4 \cdot (N_1-N_2)^2+4 \cdot N_1^2 \cdot N_3 \cdot (N_3^2+1))-2 \cdot N_3^2 \cdot ((N_1^2+2 \cdot N_1 \cdot N_2)-N_2^2))+N_1^2)-2 \cdot N_1 \cdot N_2)+N_2^2} \cdot (N_3^2+1) \cdot (N_1-N_2)}{2 \cdot N_1 \cdot N_3} - R = 0.00000$$

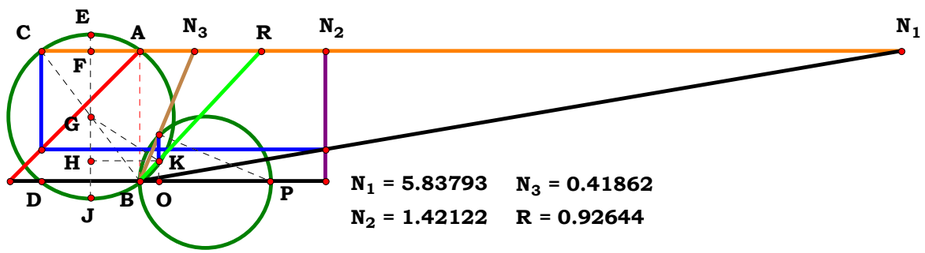
$$R - \frac{\left(N_3^2+1\right) \cdot \left[\sqrt{AC^2 \cdot \left(N_3^2+1\right)^2 + 4 \cdot N_3 \cdot \left(N_3^2 - N_3 + 1\right)} - AC \cdot \sqrt{\left(N_3^2+1\right)^2}\right]}{2 \cdot N_3 \cdot \sqrt{\left(N_3^2+1\right)^2}} = 0$$

$$R - \frac{\sqrt{N_3^4 \cdot \left(N_1 - N_2\right)^2 + 4 \cdot N_1^2 \cdot N_3 \cdot \left(N_3^2+1\right) - 2 \cdot N_3^2 \cdot \left(N_1^2 + 2 \cdot N_1 \cdot N_2 - N_2^2\right) + N_1^2 - 2 \cdot N_1 \cdot N_2 + N_2^2} - \left(N_3^2+1\right) \cdot \left(N_1 - N_2\right)}{2 \cdot N_1 \cdot N_3} = 0 \qquad N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0$$

$$R - \frac{\sqrt{B^2 \cdot \left(C^4 + 4 \cdot C^3 \cdot N_u - 2 \cdot C^2 \cdot N_u^2 + 4 \cdot C \cdot N_u^3 + N_u^4\right) + A \cdot \left(C^2 + N_u^2\right)^2 \cdot (A - 2 \cdot B)} + \left(C^2 + N_u^2\right) \cdot (A - B)}{2 \cdot N_u \cdot B \cdot C} = 0 \qquad N_1 - \frac{X}{o} = 0 \quad N_2 - \frac{Y}{p} = 0 \quad N_3 - \frac{Z}{q} = 0$$

$$R - \frac{(Y \cdot o - X \cdot p) \cdot \left(Z^2 + q^2\right) + \sqrt{Y \cdot o \cdot \left(Z^2 + q^2\right)^2 \cdot (Y \cdot o - 2 \cdot X \cdot p) + X^2 \cdot p^2 \cdot \left(Z^4 + 4 \cdot Z^3 \cdot q - 2 \cdot Z^2 \cdot q^2 + 4 \cdot Z \cdot q^3 + q^4\right)}}{2 \cdot X \cdot Z \cdot p \cdot q} = 0$$

4RST10AAB1R5



$N_1 = 5.83793$ $N_3 = 0.41862$
$N_2 = 1.42122$ $R = 0.92644$

Unit. $AB := 1$ **Given.** $N_1 := 5.8379$ $N_2 := 1.42122$ $N_3 := .41862$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

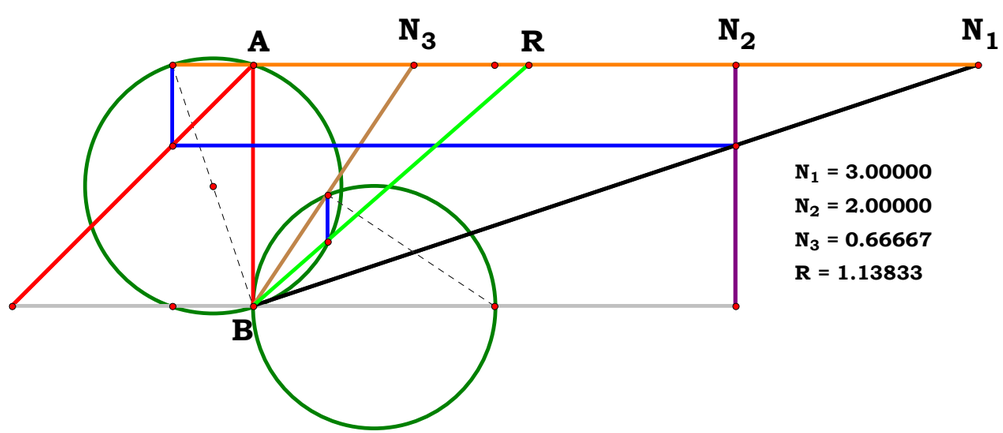
$AC := \frac{N_1 - N_2}{N_1}$ $EJ := \sqrt{AB^2 + AC^2}$

$AF := \frac{AC}{2}$ $EF := \frac{EJ - AB}{2}$

$GK := \frac{EJ}{2}$ $BO := \frac{N_3^2}{N_3^2 + 1}$

$HK := AF + BO$ $GH := \sqrt{GK^2 - HK^2}$

$KO := GK - (GH + EF)$ $R := \frac{BO}{KO}$



$N_1 = 3.00000$
$N_2 = 2.00000$
$N_3 = 0.66667$
$R = 1.13833$

$R = 0.926446$

$$\frac{(2 \cdot N_3^2 \cdot \sqrt{N_1})}{(\sqrt{N_1} \cdot (N_3^2+1)) - \sqrt{(N_1 - 2 \cdot N_3^2 \cdot (N_1 - 2 \cdot N_2)) + N_3^4 \cdot (4 \cdot N_2 - 7 \cdot N_1)}} - R = 0.00000$$

Definitions.

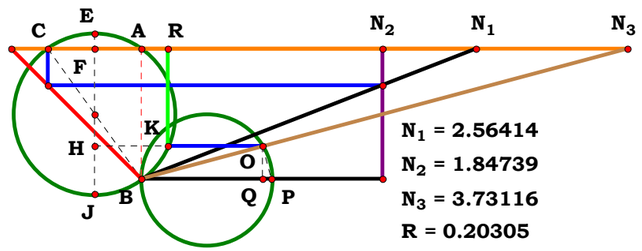
$$R - \frac{2 \cdot N_3^2 \cdot \sqrt{\left(N_3^2 + 1\right)^2}}{\left(N_3^2 + 1\right) \cdot \left[\sqrt{\left(N_3^2 + 1\right)^2} - \sqrt{2 \cdot N_3^2 - 4 \cdot AC \cdot N_3^2 \cdot \left(N_3^2 + 1\right) - 3 \cdot N_3^4 + 1}\right]} = 0$$

$$R - \frac{2 \cdot \sqrt{N_1} \cdot N_3^2}{\sqrt{N_1} \cdot \left(N_3^2 + 1\right) - \sqrt{N_1 - 2 \cdot N_3^2 \cdot \left(N_1 - 2 \cdot N_2\right) + N_3^4 \cdot \left(4 \cdot N_2 - 7 \cdot N_1\right)}} = 0 \qquad N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0$$

$$R - \frac{2 \cdot \left(\sqrt{N_u}\right)^5 \cdot \sqrt{A \cdot B}}{\sqrt{A \cdot B} \cdot \sqrt{N_u} \cdot \left(C^2 + N_u^2\right) - \sqrt{A} \cdot \sqrt{N_u \cdot \left[N_u^4 \cdot (4 \cdot A - 7 \cdot B) + B \cdot C^4 - 2 \cdot C^2 \cdot N_u^2 \cdot (B - 2 \cdot A)\right]}} = 0 \qquad N_1 - \frac{X}{o} = 0 \quad N_2 - \frac{Y}{p} = 0 \quad N_3 - \frac{Z}{q} = 0$$

$$R - \frac{2 \cdot \sqrt{X} \cdot Z^2 \cdot \sqrt{o \cdot p}}{\sqrt{o \cdot p} \cdot \sqrt{X} \cdot \left(Z^2 + q^2\right) - \sqrt{o} \cdot \sqrt{4 \cdot Y \cdot Z^2 \cdot o \cdot \left(Z^2 + q^2\right) - X \cdot p \cdot \left(7 \cdot Z^4 + 2 \cdot Z^2 \cdot q^2 - q^4\right)}} = 0$$

4RST10AAB2R2



Unit. $AB := 1$ Given. $N_1 := 2.56414$ $N_2 := 1.84739$ $N_3 := 3.73116$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

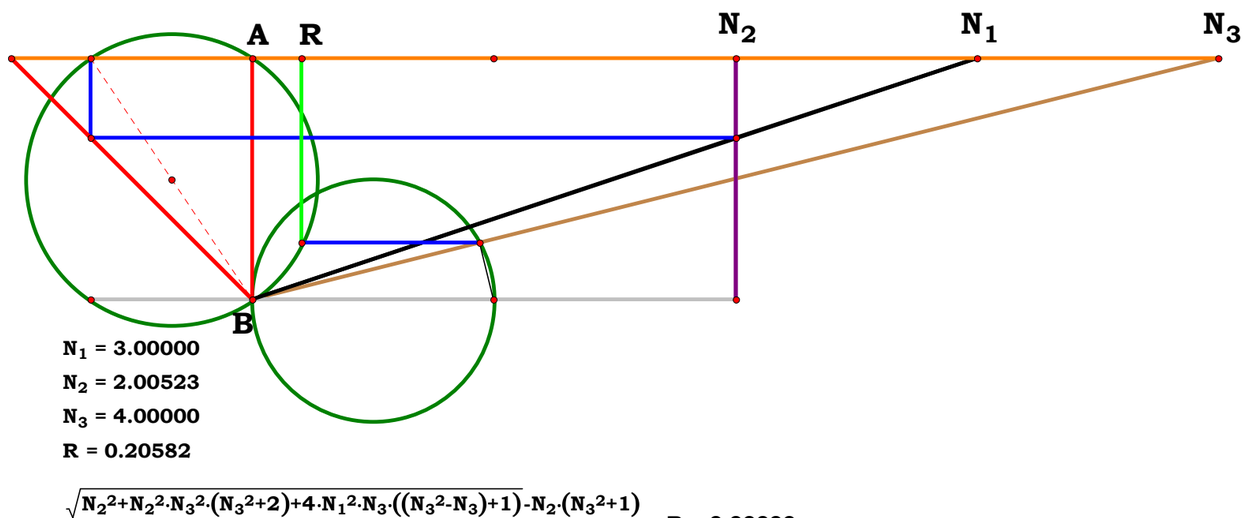
$AC := \frac{N_2}{N_1}$ $EJ := \sqrt{AB^2 + AC^2}$

$AF := \frac{AC}{2}$ $EF := \frac{EJ - AB}{2}$

$OQ := \frac{N_3}{N_3^2 + 1}$ $HJ := OQ + EF$

$HK := \sqrt{HJ \cdot (EJ - HJ)}$ $R := HK - AF$

$R = 0.203054$



$$\frac{\sqrt{N_2^2+N_2^2\cdot N_3^2\cdot(N_3^2+2)+4\cdot N_1^2\cdot N_3\cdot((N_3^2-N_3)+1)}-N_2\cdot(N_3^2+1)}{2\cdot N_1\cdot(N_3^2+1)}-R = 0.00000$$

Definitions.

$$R - \frac{\sqrt{N_2^2 + N_2^2 \cdot N_3^2 \cdot \left(N_3^2 + 2\right) + 4 \cdot N_1^2 \cdot N_3 \cdot \left(N_3^2 - N_3 + 1\right)} - N_2 \cdot \left(N_3^2 + 1\right)}{2 \cdot N_1 \cdot \left(N_3^2 + 1\right)} = 0$$

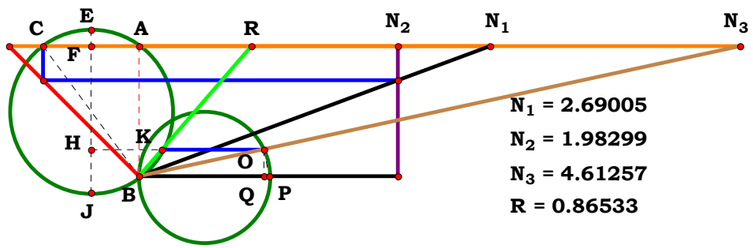
$$N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0$$

$$R - \frac{\sqrt{A^2 \cdot \left(C^2 + N_u^2\right)^2 + 4 \cdot B^2 \cdot C \cdot N_u \cdot \left(C^2 - C \cdot N_u + N_u^2\right)} - A \cdot \left(C^2 + N_u^2\right)}{2 \cdot B \cdot \left(C^2 + N_u^2\right)} = 0$$

$$N_1 - \frac{X}{o} = 0 \quad N_2 - \frac{Y}{p} = 0 \quad N_3 - \frac{Z}{q} = 0$$

$$R - \frac{\sqrt{Y^2 \cdot o^2 \cdot \left(Z^2 + q^2\right)^2 + 4 \cdot X^2 \cdot Z \cdot p^2 \cdot q \cdot \left(Z^2 - Z \cdot q + q^2\right)} - Y \cdot o \cdot \left(Z^2 + q^2\right)}{2 \cdot X \cdot p \cdot \left(Z^2 + q^2\right)} = 0$$

4RST10AAB2R4



$N_1 = 2.69005$
$N_2 = 1.98299$
$N_3 = 4.61257$
$R = 0.86533$

Unit. $AB := 1$ **Given.** $N_1 := 2.69005$ $N_2 := 1.98299$ $N_3 := 4.61257$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

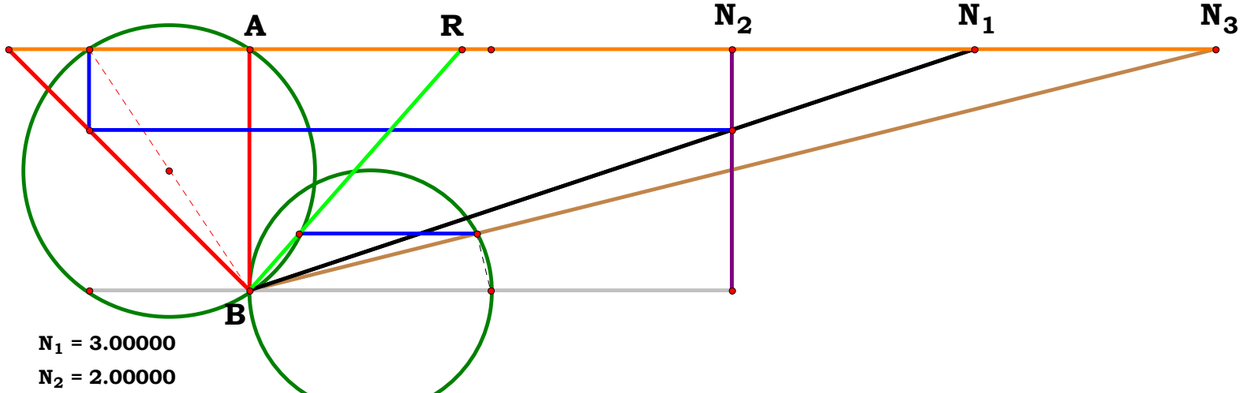
$AC := \frac{N_2}{N_1}$ $EJ := \sqrt{AB^2 + AC^2}$

$AF := \frac{AC}{2}$ $EF := \frac{EJ - AB}{2}$

$OQ := \frac{N_3}{N_3^2 + 1}$ $HJ := OQ + EF$

$HK := \sqrt{HJ \cdot (EJ - HJ)}$ $R := \frac{HK - AF}{OQ}$

$R = 0.865329$



$N_1 = 3.00000$
$N_2 = 2.00000$
$N_3 = 4.00000$
$R = 0.87614$

$\frac{\sqrt{((N_2^2 \cdot N_3^4 + 4 \cdot N_1^2 \cdot N_3 \cdot (N_3^2+1)) - 2 \cdot N_3^2 \cdot (2 \cdot N_1^2 - N_2^2)) + N_2^2} - N_2 \cdot (N_3^2+1)}{2 \cdot N_1 \cdot N_3} - R = 0.00000$

Definitions.

$$R - \frac{\sqrt{N_2^2 \cdot N_3^4 + 4 \cdot N_1^2 \cdot N_3 \cdot \left(N_3^2 + 1\right) - 2 \cdot N_3^2 \cdot \left(2 \cdot N_1^2 - N_2^2\right) + N_2^2} - N_2 \cdot \left(N_3^2 + 1\right)}{2 \cdot N_1 \cdot N_3} = 0$$

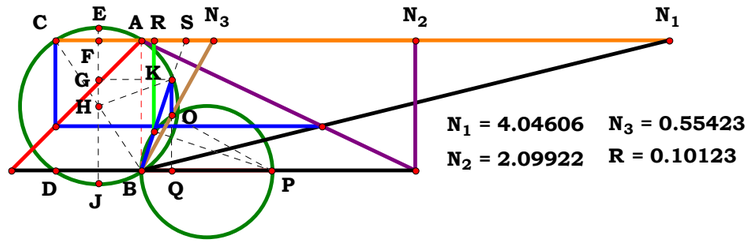
$$N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0$$

$$R - \frac{\sqrt{A^2 \cdot \left(C^2 + N_u^2\right)^2 + 4 \cdot B^2 \cdot C \cdot N_u \cdot \left(C^2 - C \cdot N_u + N_u^2\right)} - A \cdot \left(C^2 + N_u^2\right)}{2 \cdot N_u \cdot B \cdot C} = 0$$

$$N_1 - \frac{X}{o} = 0 \quad N_2 - \frac{Y}{p} = 0 \quad N_3 - \frac{Z}{q} = 0$$

$$R - \frac{\sqrt{Y^2 \cdot o^2 \cdot \left(Z^2 + q^2\right)^2 + 4 \cdot X^2 \cdot Z \cdot p^2 \cdot q \cdot \left(Z^2 - Z \cdot q + q^2\right)} - Y \cdot o \cdot \left(Z^2 + q^2\right)}{2 \cdot X \cdot Z \cdot p \cdot q} = 0$$

4RST10AAB3R0



Unit. $AB := 1$ Given. $N_1 := 4.04606$ $N_2 := 2.09922$ $N_3 := .55423$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

$AC := \frac{N_1}{N_1 + N_2}$ $EJ := \sqrt{AB^2 + AC^2}$

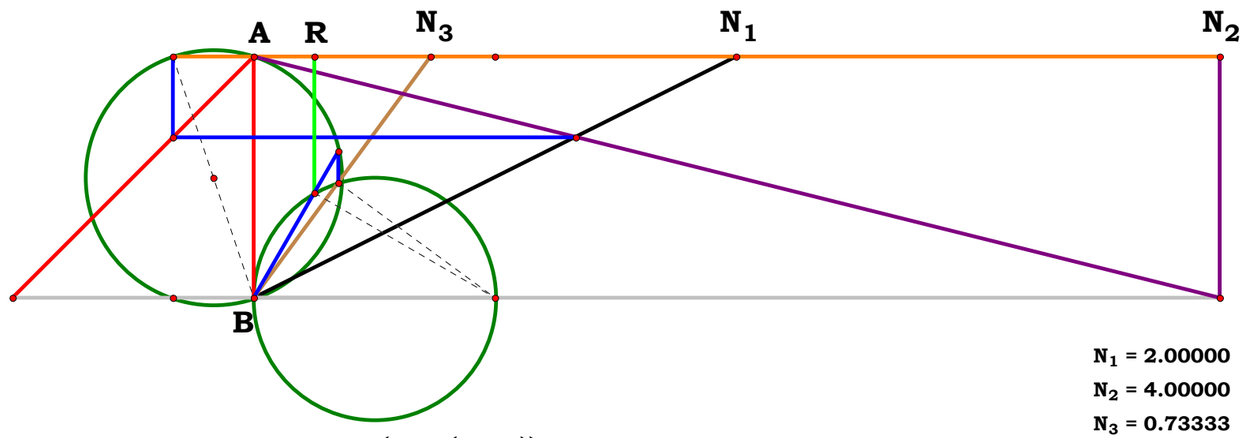
$AF := \frac{AC}{2}$ $EF := \frac{EJ - AB}{2}$

$BQ := \frac{N_3^2}{N_3^2 + 1}$ $GK := BQ + AF$

$HK := \frac{EJ}{2}$ $GH := \sqrt{HK^2 - GK^2}$

$FG := HK - (GH + EF)$ $AS := \frac{GK - AF}{AB - FG}$

$R := \frac{AS^2}{AS^2 + 1}$ $R = 0.101239$



$N_1 = 2.00000$
$N_2 = 4.00000$
$N_3 = 0.73333$
$R = 0.25013$

$$\frac{(2 \cdot N_3^4 \cdot (N_1 + N_2))}{(N_3^2+1) \cdot (((N_1+N_2) - N_3^2 \cdot (N_1 - N_2)) + \sqrt{(N_1+N_2) - 2 \cdot N_3^2 \cdot (N_1 - N_2) - N_3^4 \cdot (7 \cdot N_1 + 3 \cdot N_2)} \cdot \sqrt{(N_1+N_2)})} - R = 0.00000$$

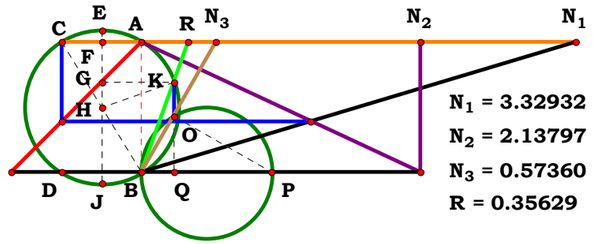
Definitions.

$$R - \frac{2 \cdot N_3^4 \cdot (N_1 + N_2)}{(N_3^2 + 1) \cdot \left[N_1 + N_2 - N_3^2 \cdot (N_1 - N_2) + \sqrt{N_1 + N_2 - 2 \cdot N_3^2 \cdot (N_1 - N_2) - N_3^4 \cdot (7 \cdot N_1 + 3 \cdot N_2)} \cdot \sqrt{N_1 + N_2}\right]} = 0 \qquad N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0$$

$$R - \frac{2 \cdot N_u^5 \cdot (\sqrt{A \cdot B})^2 \cdot (A + B)}{(C^2 + N_u^2) \cdot \left[A \cdot B \cdot N_u \cdot \left[C^2 \cdot (A + B) + N_u^2 \cdot (A - B)\right] + A \cdot B \cdot \sqrt{N_u \cdot \left[C^4 \cdot (A + B) - N_u^4 \cdot (3 \cdot A + 7 \cdot B) + 2 \cdot C^2 \cdot N_u^2 \cdot (A - B)\right]} \cdot \sqrt{N_u \cdot (A + B)}\right]} = 0 \qquad N_1 - \frac{X}{o} = 0 \quad N_2 - \frac{Y}{p} = 0 \quad N_3 - \frac{Z}{q} = 0$$

$$R - \frac{2 \cdot Z^4 \cdot (X \cdot p + Y \cdot o)}{(Z^2 + q^2) \cdot \left[\sqrt{X \cdot p + Y \cdot o} \cdot \sqrt{Y \cdot o \cdot (2 \cdot Z^2 \cdot q^2 - 3 \cdot Z^4 + q^4) - X \cdot p \cdot (7 \cdot Z^4 + 2 \cdot Z^2 \cdot q^2 - q^4)} - Z^2 \cdot (X \cdot p - Y \cdot o) + q^2 \cdot (X \cdot p + Y \cdot o)\right]} = 0$$

4RST10AAB3R1



Unit. $AB := 1$ Given. $N_1 := 3.32932$ $N_2 := 2.13797$ $N_3 := .57360$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

$AC := \frac{N_1}{N_1 + N_2}$ $EJ := \sqrt{AB^2 + AC^2}$

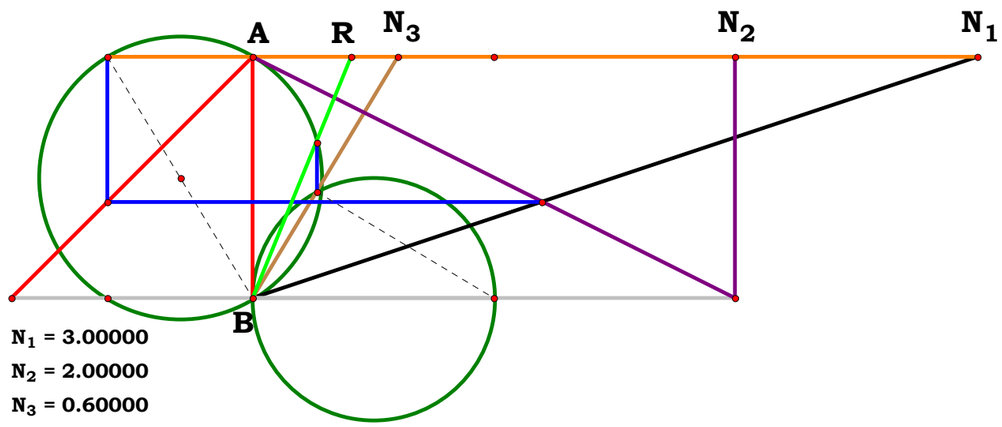
$AF := \frac{AC}{2}$ $EF := \frac{EJ - AB}{2}$

$BQ := \frac{N_3^2}{N_3^2 + 1}$ $GK := BQ + AF$

$HK := \frac{EJ}{2}$ $GH := \sqrt{HK^2 - GK^2}$

$FG := HK - (GH + EF)$ $R := \frac{GK - AF}{AB - FG}$

$R = 0.356297$



$$\frac{\left(2 \cdot N_3^2 \cdot \sqrt{(N_1+N_2)}\right)}{\sqrt{(N_1+N_2)-N_3^4 \cdot (7 \cdot N_1+3 \cdot N_2)-2 \cdot N_3^2 \cdot (N_1-N_2)}+\left(N_3^2+1\right) \cdot \sqrt{(N_1+N_2)}} - R = 0.00000$$

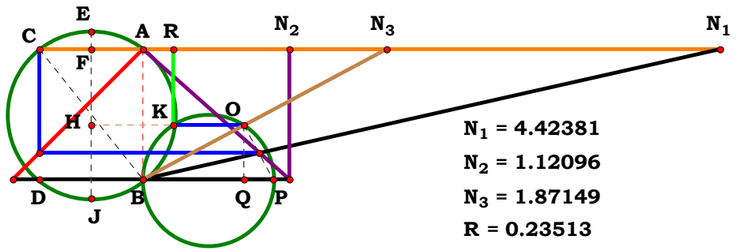
Definitions.

$$R - \frac{2 \cdot N_3^2 \cdot \sqrt{N_1 + N_2}}{\sqrt{N_1 + N_2 - N_3^4 \cdot (7 \cdot N_1 + 3 \cdot N_2) - 2 \cdot N_3^2 \cdot (N_1 - N_2)} + \sqrt{N_1 + N_2} \cdot \left(N_3^2 + 1\right)} = 0 \qquad N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0$$

$$R - \frac{2 \cdot N_u^2 \cdot \sqrt{N_u \cdot (A + B)}}{\sqrt{N_u \cdot \left[C^4 \cdot (A + B) - N_u^4 \cdot (3 \cdot A + 7 \cdot B) + 2 \cdot C^2 \cdot N_u^2 \cdot (A - B)\right]} + \sqrt{N_u \cdot (A + B)} \cdot \left(C^2 + N_u^2\right)} = 0 \qquad N_1 - \frac{X}{o} = 0 \quad N_2 - \frac{Y}{p} = 0 \quad N_3 - \frac{Z}{q} = 0$$

$$R - \frac{2 \cdot Z^2 \cdot \sqrt{X \cdot p + Y \cdot o}}{\sqrt{X \cdot p + Y \cdot o} \cdot \left(Z^2 + q^2\right) + \sqrt{Y \cdot o \cdot \left(2 \cdot Z^2 \cdot q^2 - 3 \cdot Z^4 + q^4\right) - X \cdot p \cdot \left(7 \cdot Z^4 + 2 \cdot Z^2 \cdot q^2 - q^4\right)}} = 0$$

4RST10AAB3R2



$N_1 = 4.42381$
$N_2 = 1.12096$
$N_3 = 1.87149$
$R = 0.23513$

Unit. $AB := 1$ Given. $N_1 := 4.42381$ $N_2 := 1.12096$ $N_3 := 1.87149$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

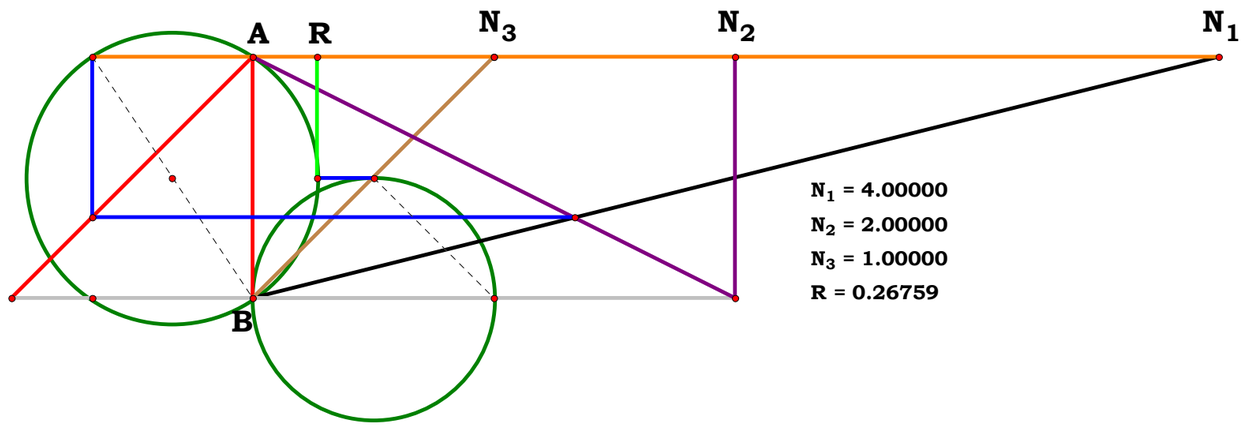
$AC := \frac{N_1}{N_1 + N_2}$ $EJ := \sqrt{AB^2 + AC^2}$

$AF := \frac{AC}{2}$ $EF := \frac{EJ - AB}{2}$

$OQ := \frac{N_3}{N_3^2 + 1}$ $HJ := OQ + EF$

$HK := \sqrt{HJ \cdot (EJ - HJ)}$ $R := HK - AF$

$R = 0.235134$



$N_1 = 4.00000$
$N_2 = 2.00000$
$N_3 = 1.00000$
$R = 0.26759$

$$\frac{\sqrt{(N_1^2-2\cdot N_3^2\cdot(N_1^2+4\cdot N_1\cdot N_2+2\cdot N_2^2))+N_1^2\cdot N_3^4+4\cdot N_3\cdot(N_1+N_2)^2\cdot(N_3^2+1)}-N_1\cdot(N_3^2+1)}{2\cdot(N_3^2+1)\cdot(N_1+N_2)}-R = 0.00000$$

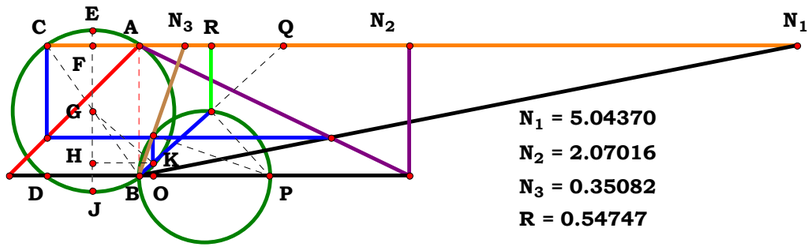
Definitions.

$$R - \frac{\sqrt{N_1^2 - 2\cdot N_3^2\cdot\left(N_1^2 + 4\cdot N_1\cdot N_2 + 2\cdot N_2^2\right) + N_1^2\cdot N_3^4 + 4\cdot N_3\cdot\left(N_1 + N_2\right)^2\cdot\left(N_3^2 + 1\right)} - N_1\cdot\left(N_3^2 + 1\right)}{2\cdot\left(N_3^2 + 1\right)\cdot\left(N_1 + N_2\right)} = 0 \qquad N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0$$

$$R - \frac{\sqrt{B^2\cdot C^4 + B^2\cdot N_u^4 + 4\cdot C\cdot N_u^3\cdot(A+B)^2 + 4\cdot C^3\cdot N_u\cdot(A+B)^2 - 2\cdot C^2\cdot N_u^2\cdot\left(2\cdot A^2 + 4\cdot A\cdot B + B^2\right)} - B\cdot\left(C^2 + N_u^2\right)}{2\cdot\left(C^2 + N_u^2\right)\cdot(A+B)} = 0 \qquad N_1 - \frac{X}{o} = 0 \quad N_2 - \frac{Y}{p} = 0 \quad N_3 - \frac{Z}{q} = 0$$

$$R - \frac{\sqrt{X^2\cdot p^2\cdot\left(Z^4 + 4\cdot Z^3\cdot q - 2\cdot Z^2\cdot q^2 + 4\cdot Z\cdot q^3 + q^4\right) + 4\cdot Y\cdot Z\cdot o\cdot q\cdot\left(Z^2 - Z\cdot q + q^2\right)\cdot(2\cdot X\cdot p + Y\cdot o)} - X\cdot p\cdot\left(Z^2 + q^2\right)}{(2\cdot X\cdot p + 2\cdot Y\cdot o)\cdot\left(Z^2 + q^2\right)} = 0$$

4RST10AAB3R3



$N_1 = 5.04370$
$N_2 = 2.07016$
$N_3 = 0.35082$
$R = 0.54747$

Unit. $AB := 1$ **Given.** $N_1 := 5.04370$ $N_2 := 2.07016$ $N_3 := .35082$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

$AC := \frac{N_1}{N_1 + N_2}$ $EJ := \sqrt{AB^2 + AC^2}$

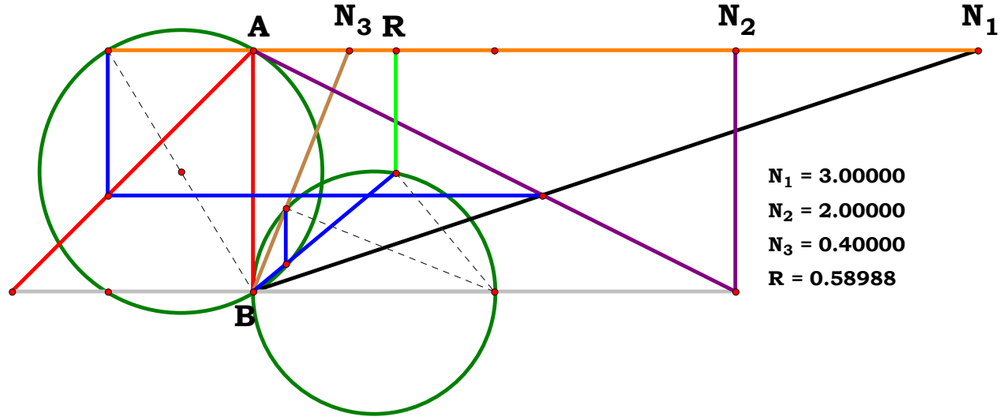
$AF := \frac{AC}{2}$ $EF := \frac{EJ - AB}{2}$

$BO := \frac{N_3^2}{N_3^2 + 1}$ $GK := \frac{EJ}{2}$

$HK := AF + BO$ $GH := \sqrt{GK^2 - HK^2}$

$KO := GK - (GH + EF)$ $AQ := \frac{BO}{KO}$

$R := \frac{AQ^2}{AQ^2 + 1}$ $R = 0.54747$



$N_1 = 3.00000$
$N_2 = 2.00000$
$N_3 = 0.40000$
$R = 0.58988$

$$\frac{(2 \cdot N_3^4 \cdot (N_1 + N_2))}{(N_3^2 + 1) \cdot (((N_1 + N_2) - N_3^2 \cdot (N_1 - N_2)) - \sqrt{(N_1 + N_2) \cdot ((N_1 + N_2) - 2 \cdot N_3^2 \cdot (N_1 - N_2) - N_3^4 \cdot (7 \cdot N_1 + 3 \cdot N_2))})} - R = 0.00000$$

Definitions.

$$R - \frac{2 \cdot N_3^4 \cdot (N_1 + N_2)}{(N_3^2 + 1) \cdot \left[N_1 + N_2 - N_3^2 \cdot (N_1 - N_2) - \sqrt{(N_1 + N_2) \cdot \left[N_1 + N_2 - 2 \cdot N_3^2 \cdot (N_1 - N_2) - N_3^4 \cdot (7 \cdot N_1 + 3 \cdot N_2)\right]}\right]} = 0$$

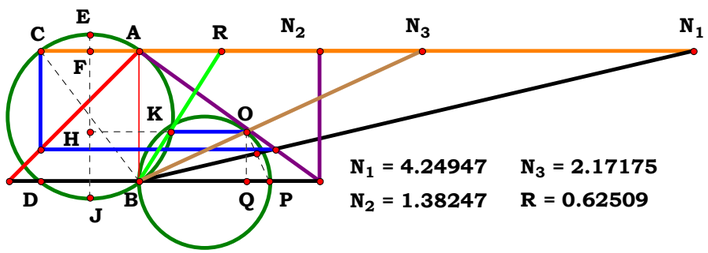
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$

$$R - \frac{2 \cdot N_u^4 \cdot (A + B)}{(C^2 + N_u^2) \cdot \left[C^2 \cdot (A + B) + N_u^2 \cdot (A - B) - \sqrt{(A + B) \cdot \left[C^4 \cdot (A + B) - N_u^4 \cdot (3 \cdot A + 7 \cdot B) + 2 \cdot C^2 \cdot N_u^2 \cdot (A - B)\right]}\right]} = 0$$

$N_1 - \frac{X}{o} = 0$ $N_2 - \frac{Y}{p} = 0$ $N_3 - \frac{Z}{q} = 0$

$$R - \frac{2 \cdot Z^4 \cdot (X \cdot p + Y \cdot o)}{(Z^2 + q^2) \cdot \left[Z^2 \cdot (Y \cdot o - X \cdot p) - \sqrt{(X \cdot p + Y \cdot o) \cdot \left[Y \cdot o \cdot (2 \cdot Z^2 \cdot q^2 - 3 \cdot Z^4 + q^4) - X \cdot p \cdot (7 \cdot Z^4 + 2 \cdot Z^2 \cdot q^2 - q^4)\right]} + q^2 \cdot (X \cdot p + Y \cdot o)\right]} = 0$$

4RST10AAB3R4



Unit. $AB := 1$ Given. $N_1 := 4.24947$ $N_2 := 1.38247$ $N_3 := 2.17175$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

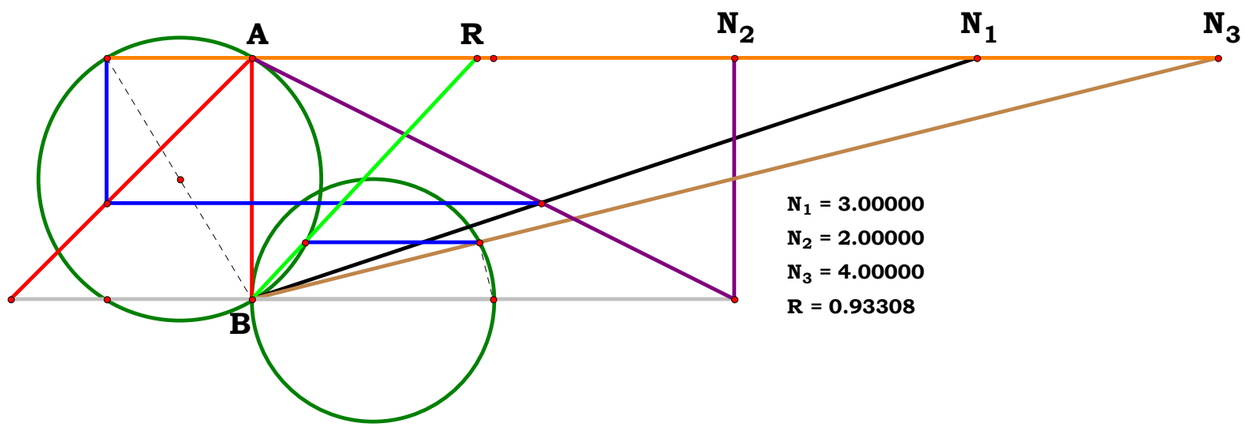
$AC := \frac{N_1}{N_1 + N_2}$ $EJ := \sqrt{AB^2 + AC^2}$

$AF := \frac{AC}{2}$ $EF := \frac{EJ - AB}{2}$

$OQ := \frac{N_3}{N_3^2 + 1}$ $HJ := OQ + EF$

$HK := \sqrt{HJ \cdot (EJ - HJ)}$ $R := \frac{HK - AF}{OQ}$

$R = 0.625087$



$$\frac{\sqrt{(N_1^2-2\cdot N_3^2\cdot(N_1^2+4\cdot N_1\cdot N_2+2\cdot N_2^2))+N_1^2\cdot N_3^4+4\cdot N_3\cdot(N_1+N_2)^2\cdot(N_3^2+1)}-N_1\cdot(N_3^2+1)}{2\cdot N_3\cdot(N_1+N_2)}-R = 0.00000$$

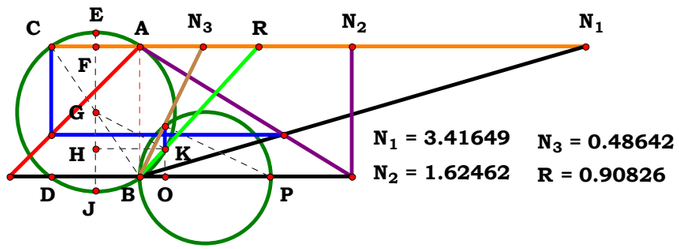
Definitions.

$$R - \frac{\sqrt{N_1^2 - 2\cdot N_3^2\cdot\left(N_1^2 + 4\cdot N_1\cdot N_2 + 2\cdot N_2^2\right) + N_1^2\cdot N_3^4 + 4\cdot N_3\cdot\left(N_1 + N_2\right)^2\cdot\left(N_3^2 + 1\right)} - N_1\cdot\left(N_3^2 + 1\right)}{2\cdot N_3\cdot\left(N_1 + N_2\right)} = 0 \qquad N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0$$

$$R - \frac{\sqrt{B^2\cdot C^4 + B^2\cdot N_u^4 + 4\cdot C\cdot N_u^3\cdot(A+B)^2 + 4\cdot C^3\cdot N_u\cdot(A+B)^2 - 2\cdot C^2\cdot N_u^2\cdot\left(2\cdot A^2 + 4\cdot A\cdot B + B^2\right)} - B\cdot\left(C^2 + N_u^2\right)}{2\cdot C\cdot N_u\cdot(A+B)} = 0 \qquad N_1 - \frac{X}{o} = 0 \quad N_2 - \frac{Y}{p} = 0 \quad N_3 - \frac{Z}{q} = 0$$

$$R - \frac{\sqrt{4\cdot Y\cdot Z\cdot o\cdot q\cdot\left(Z^2 - Z\cdot q + q^2\right)\cdot(2\cdot X\cdot p + Y\cdot o) + X^2\cdot p^2\cdot\left(Z^4 + 4\cdot Z^3\cdot q - 2\cdot Z^2\cdot q^2 + 4\cdot Z\cdot q^3 + q^4\right)} - X\cdot p\cdot\left(Z^2 + q^2\right)}{2\cdot Z\cdot q\cdot(X\cdot p + Y\cdot o)} = 0$$

4RST10AAB3R5



Unit. $AB := 1$ Given. $N_1 := 3.41649$ $N_2 := 1.62462$ $N_3 := .48642$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

$AC := \frac{N_1}{N_1 + N_2}$ $EJ := \sqrt{AB^2 + AC^2}$

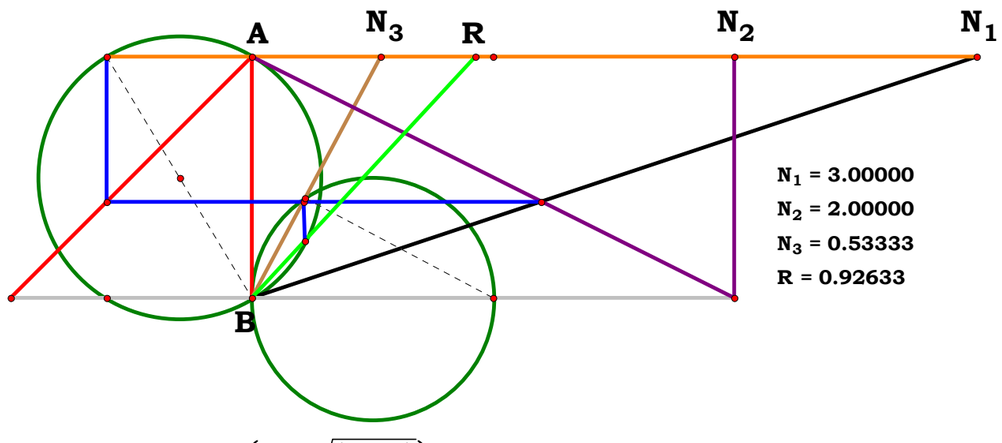
$AF := \frac{AC}{2}$ $EF := \frac{EJ - AB}{2}$

$GK := \frac{EJ}{2}$ $BO := \frac{N_3^2}{N_3^2 + 1}$

$HK := AF + BO$ $GH := \sqrt{GK^2 - HK^2}$

$KO := GK - (GH + EF)$ $R := \frac{BO}{KO}$

$R = 0.908272$



$$\frac{\left(2\cdot N_3^{2}\cdot\sqrt{(N_1+N_2)}\right)}{(N_3^{2}+1)\cdot\sqrt{(N_1+N_2)}-\sqrt{(N_1+N_2)\cdot 2\cdot N_3^{2}\cdot(N_1-N_2)-N_3^{4}\cdot(7\cdot N_1+3\cdot N_2)}}-R = 0.00000$$

Definitions.

$$R - \frac{2\cdot N_3^{2}\cdot\sqrt{N_1+N_2}}{\sqrt{N_1+N_2}\cdot\left(N_3^{2}+1\right)-\sqrt{N_1+N_2-2\cdot N_3^{2}\cdot\left(N_1-N_2\right)-N_3^{4}\cdot\left(7\cdot N_1+3\cdot N_2\right)}} = 0$$

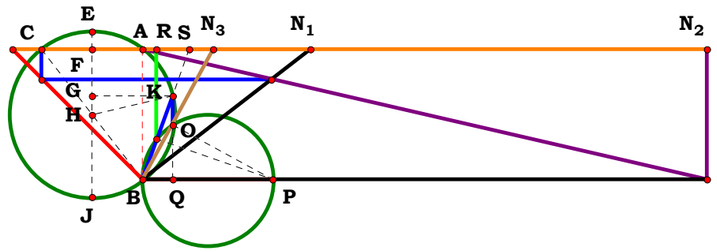
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$

$$R - \frac{2\cdot N_u^{2}\cdot\sqrt{N_u\cdot(A+B)}}{\sqrt{N_u\cdot(A+B)}\cdot\left(C^2+N_u^{2}\right)-\sqrt{N_u\cdot\left[C^4\cdot(A+B)-N_u^{4}\cdot(3\cdot A+7\cdot B)+2\cdot C^2\cdot N_u^{2}\cdot(A-B)\right]}} = 0$$

$N_1 - \frac{X}{o} = 0$ $N_2 - \frac{Y}{p} = 0$ $N_3 - \frac{Z}{q} = 0$

$$R - \frac{2\cdot Z^2\cdot\sqrt{X\cdot p+Y\cdot o}}{\sqrt{X\cdot p+Y\cdot o}\cdot\left(Z^2+q^2\right)-\sqrt{Y\cdot o\cdot\left(2\cdot Z^2\cdot q^2-3\cdot Z^4+q^4\right)-X\cdot p\cdot\left(7\cdot Z^4+2\cdot Z^2\cdot q^2-q^4\right)}} = 0$$

4RST10AAB4R0



$N_1 = 1.28562$
$N_2 = 4.32695$
$N_3 = 0.54454$
$R = 0.11132$

Unit. $AB := 1$ **Given.** $N_1 := 1.28562$ $N_2 := 4.32695$ $N_3 := .54454$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

$AC := \frac{N_2}{N_1 + N_2}$ $EJ := \sqrt{AB^2 + AC^2}$

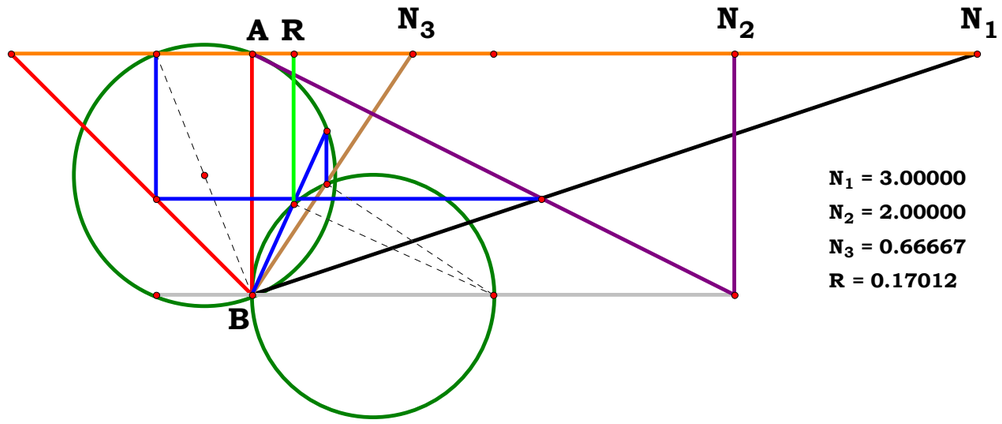
$AF := \frac{AC}{2}$ $EF := \frac{EJ - AB}{2}$

$BQ := \frac{N_3^2}{N_3^2 + 1}$ $GK := BQ + AF$

$HK := \frac{EJ}{2}$ $GH := \sqrt{HK^2 - GK^2}$

$FG := HK - (GH + EF)$ $AS := \frac{GK - AF}{AB - FG}$

$R := \frac{AS^2}{AS^2 + 1}$ $R = 0.111319$



$N_1 = 3.00000$
$N_2 = 2.00000$
$N_3 = 0.66667$
$R = 0.17012$

$$\frac{(2 \cdot N_3^4 \cdot (N_1 + N_2))}{(N_3^2+1) \cdot (((N_1+N_2)+N_3^2 \cdot (N_1-N_2)) + \sqrt{(N_1+N_2)} \cdot \sqrt{((N_1+N_2)+2 \cdot N_3^2 \cdot (N_1-N_2)) - N_3^4 \cdot (3 \cdot N_1 + 7 \cdot N_2)})} - R = 0.00000$$

Definitions.

$$R - \frac{2 \cdot N_3^4 \cdot (N_1 + N_2)}{(N_3^2 + 1) \cdot \left[N_1 + N_2 + N_3^2 \cdot (N_1 - N_2) + \sqrt{N_1 + N_2} \cdot \sqrt{N_1 + N_2 + 2 \cdot N_3^2 \cdot (N_1 - N_2) - N_3^4 \cdot (3 \cdot N_1 + 7 \cdot N_2)}\right]} = 0$$

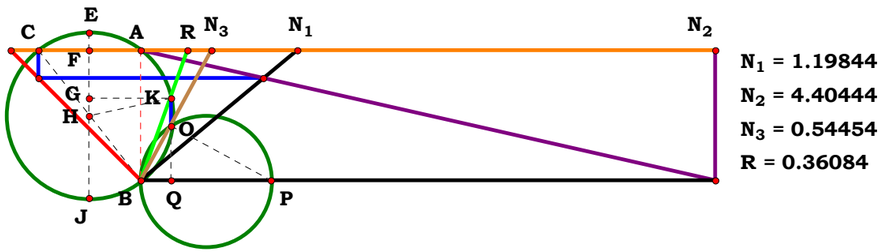
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$

$$R - \frac{2 \cdot N_u^5 \cdot (A + B)}{(C^2 + N_u^2) \cdot \left[\sqrt{-N_u \cdot \left[N_u^4 \cdot (7 \cdot A + 3 \cdot B) - C^4 \cdot (A + B) + 2 \cdot C^2 \cdot N_u^2 \cdot (A - B)\right]} \cdot \sqrt{N_u \cdot (A + B)} - N_u^3 \cdot (A - B) + C^2 \cdot N_u \cdot (A + B)\right]} = 0$$

$N_1 - \frac{X}{o} = 0$ $N_2 - \frac{Y}{p} = 0$ $N_3 - \frac{Z}{q} = 0$

$$R - \frac{2 \cdot Z^4 \cdot \left(\sqrt{X \cdot p + Y \cdot o}\right)^2}{(Z^2 + q^2) \cdot \left[\sqrt{X \cdot p + Y \cdot o} \cdot \sqrt{2 \cdot Z^2 \cdot q^2 \cdot (X \cdot p - Y \cdot o) + q^4 \cdot (X \cdot p + Y \cdot o) - Z^4 \cdot (3 \cdot X \cdot p + 7 \cdot Y \cdot o)} + Z^2 \cdot (X \cdot p - Y \cdot o) + q^2 \cdot (X \cdot p + Y \cdot o)\right]} = 0$$

4RST10AAB4R1



Unit. $AB := 1$ Given. $N_1 := 1.19844$ $N_2 := 4.40444$ $N_3 := .54454$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

$AC := \frac{N_2}{N_1 + N_2}$ $EJ := \sqrt{AB^2 + AC^2}$

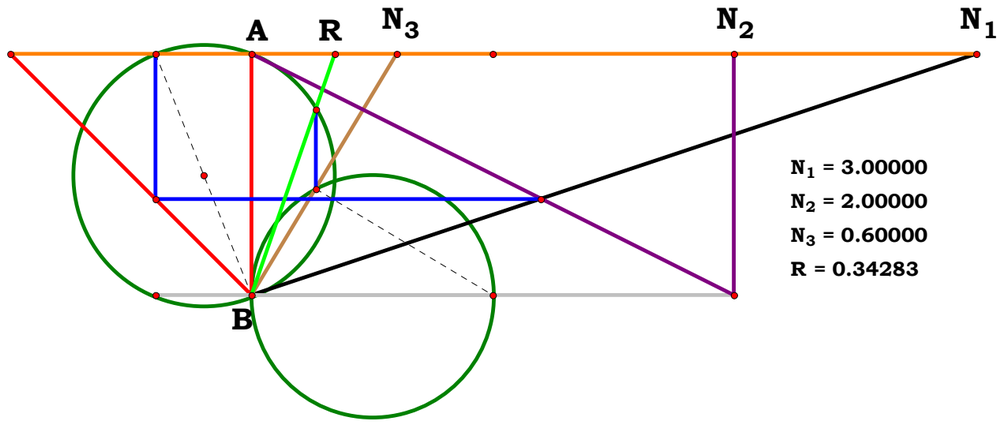
$AF := \frac{AC}{2}$ $EF := \frac{EJ - AB}{2}$

$BQ := \frac{N_3^2}{N_3^2 + 1}$ $GK := BQ + AF$

$HK := \frac{EJ}{2}$ $GH := \sqrt{HK^2 - GK^2}$

$FG := HK - (GH + EF)$ $R := \frac{GK - AF}{AB - FG}$

$R = 0.360842$



$\frac{(2 \cdot N_3^2 \cdot \sqrt{(N_1+N_2)})}{(N_3^2+1) \cdot \sqrt{(N_1+N_2)} + \sqrt{((N_1+N_2)+2 \cdot N_3^2 \cdot (N_1-N_2)) - N_3^4 \cdot (3 \cdot N_1+7 \cdot N_2)}} - R = 0.00000$

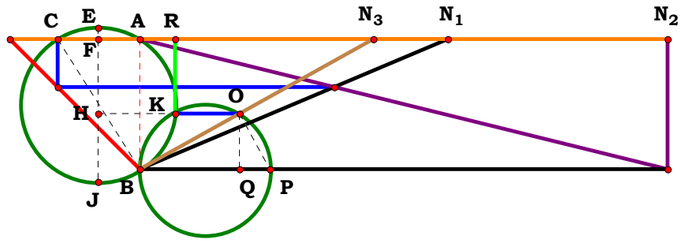
Definitions.

$R - \frac{2 \cdot N_3^2 \cdot \sqrt{N_1 + N_2}}{\sqrt{N_1 + N_2} \cdot \left(N_3^2 + 1\right) + \sqrt{N_1 + N_2 + 2 \cdot N_3^2 \cdot \left(N_1 - N_2\right) - N_3^4 \cdot \left(3 \cdot N_1 + 7 \cdot N_2\right)}} = 0$ $\quad N_1 - \frac{N_u}{A} = 0$ $\quad N_2 - \frac{N_u}{B} = 0$ $\quad N_3 - \frac{N_u}{C} = 0$

$R - \frac{2 \cdot N_u^2 \cdot \sqrt{N_u \cdot (A + B)}}{\sqrt{N_u \cdot \left[(A + B) \cdot C^4 + -2 \cdot C^2 \cdot N_u^2 \cdot (A - B) - N_u^4 \cdot (7 \cdot A + 3 \cdot B)\right]} + \sqrt{\left[N_u \cdot (A + B)\right]} \cdot \left(C^2 + N_u^2\right)} = 0$ $\quad N_1 - \frac{X}{o} = 0$ $\quad N_2 - \frac{Y}{p} = 0$ $\quad N_3 - \frac{Z}{q} = 0$

$R - \frac{2 \cdot Z^2 \cdot \sqrt{X \cdot p + Y \cdot o}}{\sqrt{X \cdot p + Y \cdot o} \cdot \left(Z^2 + q^2\right) + \sqrt{2 \cdot Z^2 \cdot q^2 \cdot (X \cdot p - Y \cdot o) + q^4 \cdot (X \cdot p + Y \cdot o) - Z^4 \cdot (3 \cdot X \cdot p + 7 \cdot Y \cdot o)}} = 0$

4RST10AAB4R2



$N_1 = 2.36074$
$N_2 = 4.04606$
$N_3 = 1.79401$
$R = 0.27086$

Unit. $AB := 1$ **Given.** $N_1 := 2.36074$ $N_2 := 4.04606$ $N_3 := 1.79401$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

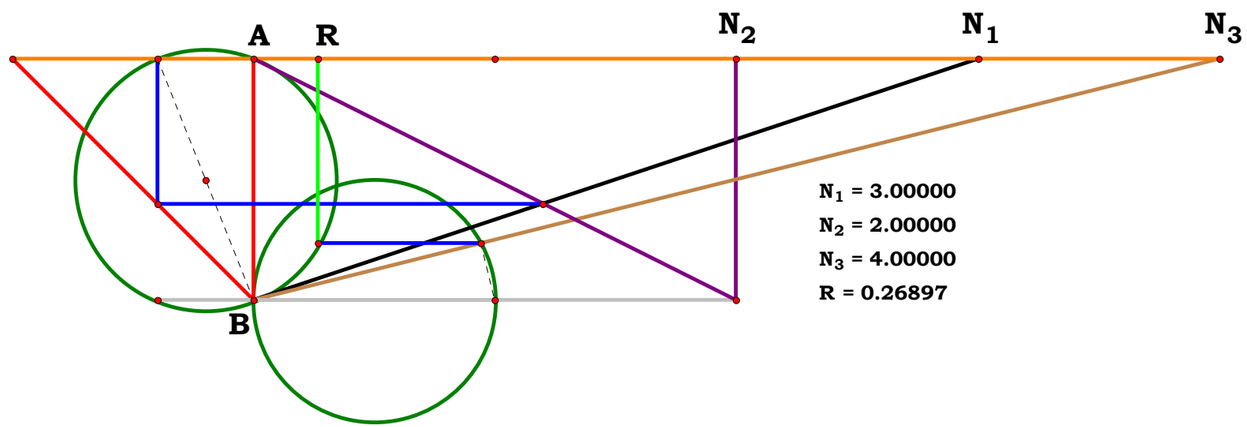
$AC := \frac{N_2}{N_1 + N_2}$ $EJ := \sqrt{AB^2 + AC^2}$

$AF := \frac{AC}{2}$ $EF := \frac{EJ - AB}{2}$

$OQ := \frac{N_3}{N_3^2 + 1}$ $HJ := OQ + EF$

$HK := \sqrt{HJ \cdot (EJ - HJ)}$ $R := HK - AF$

$R = 0.270857$



$N_1 = 3.00000$
$N_2 = 2.00000$
$N_3 = 4.00000$
$R = 0.26897$

$$\frac{\sqrt{(N_2^2-2\cdot N_3^2\cdot(2\cdot N_1^2+4\cdot N_1\cdot N_2+N_2^2))+N_2^2\cdot N_3^4+4\cdot N_3\cdot(N_1+N_2)^2\cdot(N_3^2+1)}-N_2\cdot(N_3^2+1)}{2\cdot(N_1+N_2)\cdot(N_3^2+1)}-R = 0.00000$$

Definitions.

$$R - \frac{\sqrt{N_2^2 - 2\cdot N_3^2\cdot\left(2\cdot N_1^2 + 4\cdot N_1\cdot N_2 + N_2^2\right) + N_2^2\cdot N_3^4 + 4\cdot N_3\cdot\left(N_1 + N_2\right)^2\cdot\left(N_3^2 + 1\right)} - N_2\cdot\left(N_3^2 + 1\right)}{2\cdot\left(N_1 + N_2\right)\cdot\left(N_3^2 + 1\right)} = 0$$

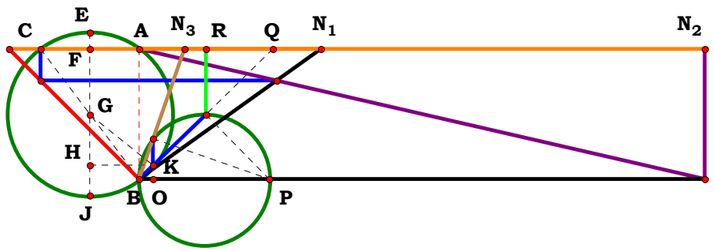
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$

$$R - \frac{\sqrt{A^2\cdot C^4 + A^2\cdot N_u^4 + 4\cdot C\cdot N_u^3\cdot(A+B)^2 + 4\cdot C^3\cdot N_u\cdot(A+B)^2 - 2\cdot C^2\cdot N_u^2\cdot\left(A^2 + 4\cdot A\cdot B + 2\cdot B^2\right)} - A\cdot\left(C^2 + N_u^2\right)}{2\cdot\left(C^2 + N_u^2\right)\cdot(A+B)} = 0$$

$N_1 - \frac{X}{o} = 0$ $N_2 - \frac{Y}{p} = 0$ $N_3 - \frac{Z}{q} = 0$

$$R - \frac{\sqrt{4\cdot X\cdot Z\cdot p\cdot q\cdot\left(Z^2 - Z\cdot q + q^2\right)\cdot(X\cdot p + 2\cdot Y\cdot o) + Y^2\cdot o^2\cdot\left(Z^4 + 4\cdot Z^3\cdot q - 2\cdot Z^2\cdot q^2 + 4\cdot Z\cdot q^3 + q^4\right)} - Y\cdot o\cdot\left(Z^2 + q^2\right)}{2\cdot(X\cdot p + Y\cdot o)\cdot\left(Z^2 + q^2\right)} = 0$$

4RST10AAB4R3



$N_1 = 1.39216$
$N_2 = 4.33664$
$N_3 = 0.35082$
$R = 0.51543$

Unit. $AB := 1$ **Given.** $N_1 := 1.39216$ $N_2 := 4.33664$ $N_3 := .35082$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

$AC := \frac{N_2}{N_1 + N_2}$ $EJ := \sqrt{AB^2 + AC^2}$

$AF := \frac{AC}{2}$ $EF := \frac{EJ - AB}{2}$

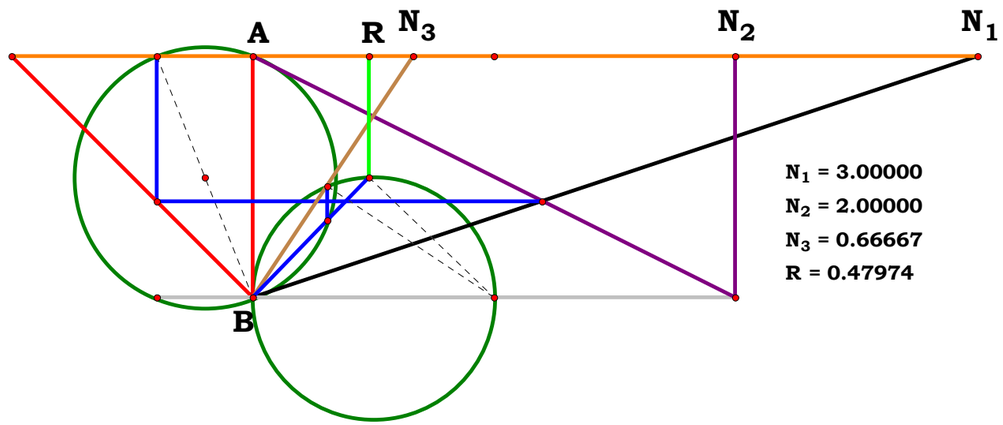
$BO := \frac{N_3^2}{N_3^2 + 1}$ $GK := \frac{EJ}{2}$

$HK := AF + BO$ $GH := \sqrt{GK^2 - HK^2}$

$KO := GK - (GH + EF)$ $AQ := \frac{BO}{KO}$

AO^2

$R := \frac{AQ^2}{AQ^2 + 1}$ $R = 0.51543$



$N_1 = 3.00000$
$N_2 = 2.00000$
$N_3 = 0.66667$
$R = 0.47974$

$$\frac{(2 \cdot N_3^4 \cdot (N_1 + N_2))}{(N_3^2+1) \cdot ((N_1+N_2) + N_3^2 \cdot (N_1 - N_2)) - (N_3^2+1) \cdot \sqrt{((N_1+N_2) \cdot (((N_1+N_2) - N_3^4 \cdot (3 \cdot N_1 + 7 \cdot N_2)) + 2 \cdot N_3^2 \cdot (N_1 - N_2)))}} - R = 0.00000$$

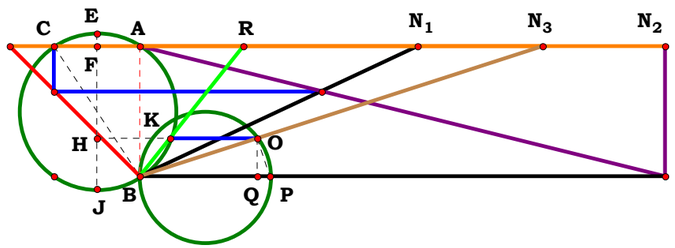
Definitions.

$$R - \frac{2 \cdot N_3^4 \cdot (N_1 + N_2)}{(N_3^2 + 1) \cdot [N_1 + N_2 + N_3^2 \cdot (N_1 - N_2)] - (N_3^2 + 1) \cdot \sqrt{(N_1 + N_2) \cdot [N_1 + N_2 - N_3^4 \cdot (3 \cdot N_1 + 7 \cdot N_2) + 2 \cdot N_3^2 \cdot (N_1 - N_2)]}} = 0 \qquad N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0$$

$$R - \frac{2 \cdot N_u^4 \cdot (A + B)}{(C^2 + N_u^2) \cdot \left[C^2 \cdot (A + B) - N_u^2 \cdot (A - B) - \sqrt{(A + B) \cdot [C^4 \cdot (A + B) - N_u^4 \cdot (7 \cdot A + 3 \cdot B) - 2 \cdot C^2 \cdot N_u^2 \cdot (A - B)]}\right]} = 0 \qquad N_1 - \frac{X}{o} = 0 \quad N_2 - \frac{Y}{p} = 0 \quad N_3 - \frac{Z}{q} = 0$$

$$R - \frac{2 \cdot Z^4 \cdot (X \cdot p + Y \cdot o)}{(Z^2 + q^2) \cdot \left[Y \cdot o \cdot q^2 - Y \cdot Z^2 \cdot o + X \cdot p \cdot (Z^2 + q^2) - \sqrt{(X \cdot p + Y \cdot o) \cdot (X \cdot p \cdot q^4 - 7 \cdot Y \cdot Z^4 \cdot o - 3 \cdot X \cdot Z^4 \cdot p + Y \cdot o \cdot q^4 + 2 \cdot X \cdot Z^2 \cdot p \cdot q^2 - 2 \cdot Y \cdot Z^2 \cdot o \cdot q^2)}\right]} = 0$$

4RST10AAB4R4



$N_1 = 2.12828$
$N_2 = 4.02669$
$N_3 = 3.09190$
$R = 0.79682$

Unit. $AB := 1$ Given. $N_1 := 2.12828$ $N_2 := 4.02669$ $N_3 := 3.09190$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

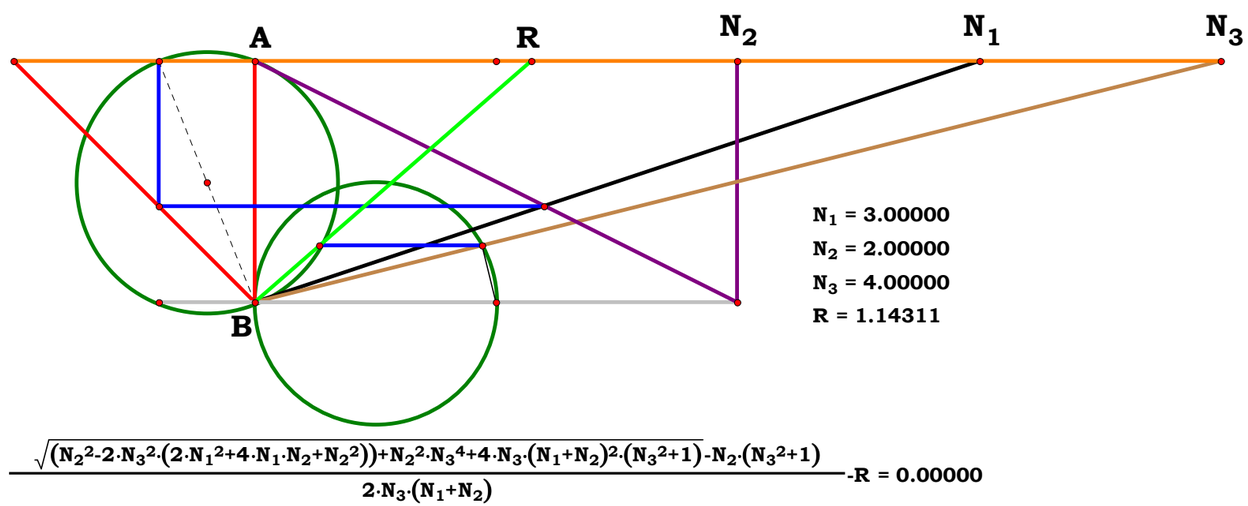
$AC := \frac{N_2}{N_1 + N_2}$ $EJ := \sqrt{AB^2 + AC^2}$

$AF := \frac{AC}{2}$ $EF := \frac{EJ - AB}{2}$

$OQ := \frac{N_3}{N_3^2 + 1}$ $HJ := OQ + EF$

$HK := \sqrt{HJ \cdot (EJ - HJ)}$ $R := \frac{HK - AF}{OQ}$

$R = 0.796824$



$N_1 = 3.00000$
$N_2 = 2.00000$
$N_3 = 4.00000$
$R = 1.14311$

$$\frac{\sqrt{(N_2^2-2\cdot N_3^2\cdot(2\cdot N_1^2+4\cdot N_1\cdot N_2+N_2^2))+N_2^2\cdot N_3^4+4\cdot N_3\cdot(N_1+N_2)^2\cdot(N_3^2+1)}-N_2\cdot(N_3^2+1)}{2\cdot N_3\cdot(N_1+N_2)}-R = 0.00000$$

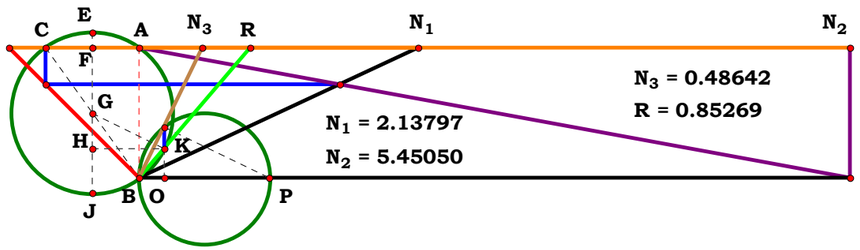
Definitions.

$$R - \frac{\sqrt{N_2^2 - 2\cdot N_3^2\cdot\left(2\cdot N_1^2 + 4\cdot N_1\cdot N_2 + N_2^2\right) + N_2^2\cdot N_3^4 + 4\cdot N_3\cdot\left(N_1 + N_2\right)^2\cdot\left(N_3^2 + 1\right)} - N_2\cdot\left(N_3^2 + 1\right)}{2\cdot N_3\cdot\left(N_1 + N_2\right)} = 0 \qquad N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0$$

$$R - \frac{\sqrt{A^2\cdot\left(C^4 + N_u^4\right) - 2\cdot C^2\cdot N_u^2\cdot\left(A^2 + 4\cdot A\cdot B + 2\cdot B^2\right) + 4\cdot C\cdot N_u\cdot\left(C^2 + N_u^2\right)\cdot(A + B)^2} - A\cdot\left(C^2 + N_u^2\right)}{2\cdot C\cdot N_u\cdot(A + B)} = 0 \qquad N_1 - \frac{X}{o} = 0 \quad N_2 - \frac{Y}{p} = 0 \quad N_3 - \frac{Z}{q} = 0$$

$$R - \frac{\sqrt{Y^2\cdot o^2\cdot\left(Z^4 + 4\cdot Z^3\cdot q - 2\cdot Z^2\cdot q^2 + 4\cdot Z\cdot q^3 + q^4\right) + 4\cdot X\cdot Z\cdot p\cdot q\cdot\left(Z^2 - Z\cdot q + q^2\right)\cdot(X\cdot p + 2\cdot Y\cdot o)} - Y\cdot o\cdot\left(Z^2 + q^2\right)}{2\cdot Z\cdot q\cdot(X\cdot p + Y\cdot o)} = 0$$

4RST10AAB4R5



Unit. $AB := 1$ Given. $N_1 := 2.13797$ $N_2 := 5.45050$ $N_3 := .48642$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

$AC := \frac{N_2}{N_1 + N_2}$ $EJ := \sqrt{AB^2 + AC^2}$

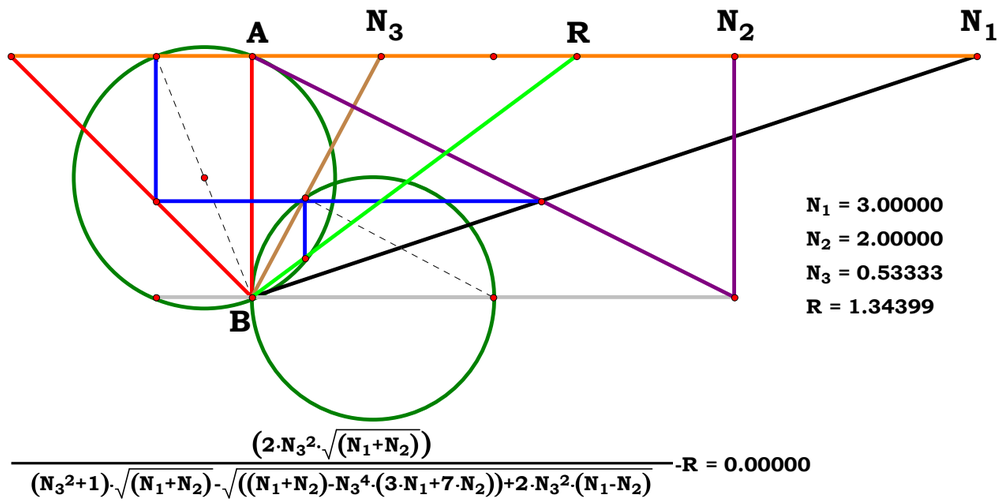
$AF := \frac{AC}{2}$ $EF := \frac{EJ - AB}{2}$

$GK := \frac{EJ}{2}$ $BO := \frac{N_3^2}{N_3^2 + 1}$

$HK := AF + BO$ $GH := \sqrt{GK^2 - HK^2}$

$KO := GK - (GH + EF)$ $R := \frac{BO}{KO}$

$R = 0.852704$



$$\frac{(2 \cdot N_3^2 \cdot \sqrt{(N_1+N_2)})}{(N_3^2+1) \cdot \sqrt{(N_1+N_2)} - \sqrt{((N_1+N_2) - N_3^4 \cdot (3 \cdot N_1 + 7 \cdot N_2)) + 2 \cdot N_3^2 \cdot (N_1 - N_2)}} - R = 0.00000$$

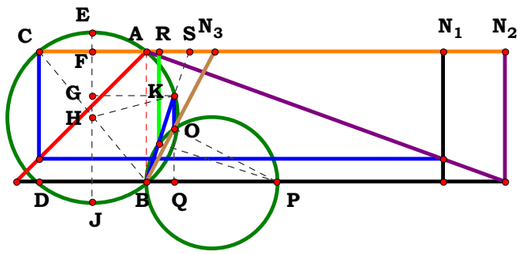
Definitions.

$$R - \frac{2 \cdot N_3^2 \cdot \sqrt{N_1 + N_2}}{\sqrt{N_1 + N_2} \cdot \left(N_3^2 + 1\right) - \sqrt{N_1 + N_2 - N_3^4 \cdot \left(3 \cdot N_1 + 7 \cdot N_2\right) + 2 \cdot N_3^2 \cdot \left(N_1 - N_2\right)}} = 0 \qquad N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0$$

$$R - \frac{2 \cdot N_u^2 \cdot \sqrt{N_u \cdot (A + B)}}{\sqrt{N_u \cdot (A + B)} \cdot \left(C^2 + N_u^2\right) - \sqrt{N_u \cdot \left[(A + B) \cdot C^4 - 2 \cdot C^2 \cdot N_u^2 \cdot (A - B) - N_u^4 \cdot (7 \cdot A + 3 \cdot B)\right]}} = 0 \qquad N_1 - \frac{X}{o} = 0 \quad N_2 - \frac{Y}{p} = 0 \quad N_3 - \frac{Z}{q} = 0$$

$$R - \frac{2 \cdot Z^2 \cdot \sqrt{X \cdot p + Y \cdot o}}{\sqrt{X \cdot p + Y \cdot o} \cdot \left(Z^2 + q^2\right) - \sqrt{2 \cdot Z^2 \cdot q^2 \cdot (X \cdot p - Y \cdot o) + q^4 \cdot (X \cdot p + Y \cdot o) - Z^4 \cdot (3 \cdot X \cdot p + 7 \cdot Y \cdot o)}} = 0$$

4RST10AAB5R0



$N_1 = 2.27357$
$N_2 = 2.74817$
$N_3 = 0.52517$
$R = 0.09789$

Unit. $AB := 1$ Given. $N_1 := 2.27357$ $N_2 := 2.74817$ $N_3 := .52517$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

$AC := \frac{N_1}{N_2}$ $EJ := \sqrt{AB^2 + AC^2}$

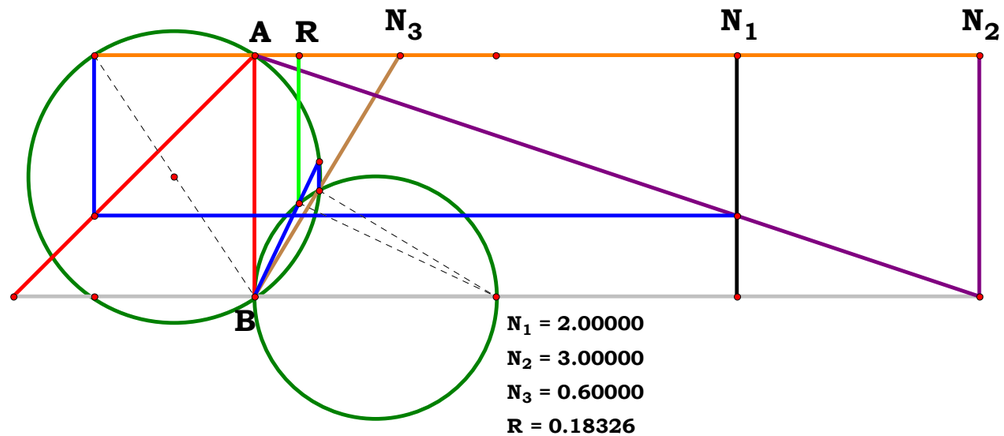
$AF := \frac{AC}{2}$ $EF := \frac{EJ - AB}{2}$

$BQ := \frac{N_3^2}{N_3^2 + 1}$ $GK := BQ + AF$

$HK := \frac{EJ}{2}$ $GH := \sqrt{HK^2 - GK^2}$

$FG := HK - (GH + EF)$ $AS := \frac{GK - AF}{AB - FG}$

$R := \frac{AS^2}{AS^2 + 1}$ $R = 0.097888$



$N_1 = 2.00000$
$N_2 = 3.00000$
$N_3 = 0.60000$
$R = 0.18326$

$\frac{(2 \cdot N_2 \cdot N_3^4)}{(N_3^2+1) \cdot (((N_2 - 2 \cdot N_1 \cdot N_3^2) + N_2 \cdot N_3^2) + \sqrt{N_2^2 - 4 \cdot N_1 \cdot N_2 \cdot N_3^2 \cdot (N_3^2+1) - N_2^2 \cdot N_3^2 \cdot (3 \cdot N_3^2 - 2)})} - R = 0.00000$

Definitions.

$$R - \frac{2 \cdot N_2 \cdot N_3^4}{\left(N_3^2 + 1\right) \cdot \left[N_2 - 2 \cdot N_1 \cdot N_3^2 + N_2 \cdot N_3^2 + \sqrt{N_2^2 - 4 \cdot N_1 \cdot N_2 \cdot N_3^2 \cdot \left(N_3^2 + 1\right) - N_2^2 \cdot N_3^2 \cdot \left(3 \cdot N_3^2 - 2\right)}\right]} = 0$$

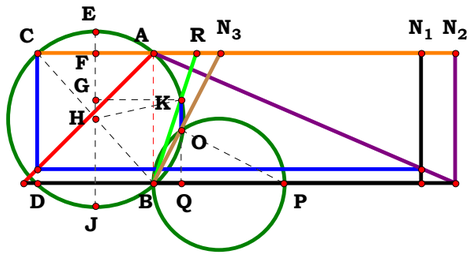
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$

$$R - \frac{2 \cdot \left(\sqrt{A}\right)^2 \cdot N_u^4}{\left(C^2 + N_u^2\right) \cdot \left[\sqrt{A} \cdot \sqrt{A \cdot C^4 - N_u^4 \cdot (3 \cdot A + 4 \cdot B) + 2 \cdot C^2 \cdot N_u^2 \cdot (A - 2 \cdot B)} + A \cdot C^2 + N_u^2 \cdot (A - 2 \cdot B)\right]} = 0$$

$N_1 - \frac{X}{o} = 0$ $N_2 - \frac{Y}{p} = 0$ $N_3 - \frac{Z}{q} = 0$

$$R - \frac{2 \cdot Y \cdot Z^4 \cdot \left(\sqrt{o}\right)^2}{\left(Z^2 + q^2\right) \cdot \left(\sqrt{o} \cdot \sqrt{2 \cdot o \cdot Y^2 \cdot Z^2 \cdot q^2 - 3 \cdot o \cdot Y^2 \cdot Z^4 + o \cdot Y^2 \cdot q^4 - 4 \cdot X \cdot p \cdot Y \cdot Z^4 - 4 \cdot X \cdot p \cdot Y \cdot Z^2 \cdot q^2} + Y \cdot Z^2 \cdot o - 2 \cdot X \cdot Z^2 \cdot p + Y \cdot o \cdot q^2\right)} = 0$$

4RST10AAB5R1



$N_1 = 2.05079$
$N_2 = 2.31231$
$N_3 = 0.51548$
$R = 0.32778$

Unit. $AB := 1$ **Given.** $N_1 := 2.05079$ $N_2 := 2.31231$ $N_3 := .51548$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

$AC := \frac{N_1}{N_2}$ $EJ := \sqrt{AB^2 + AC^2}$

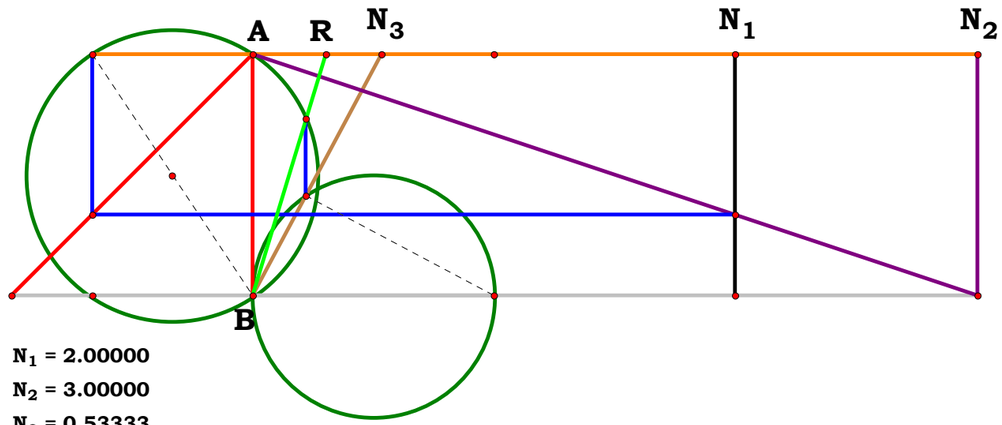
$AF := \frac{AC}{2}$ $EF := \frac{EJ - AB}{2}$

$BQ := \frac{N_3^2}{N_3^2 + 1}$ $GK := BQ + AF$

$HK := \frac{EJ}{2}$ $GH := \sqrt{HK^2 - GK^2}$

$FG := HK - (GH + EF)$ $R := \frac{GK - AF}{AB - FG}$

$R = 0.327778$



$N_1 = 2.00000$
$N_2 = 3.00000$
$N_3 = 0.53333$
$R = 0.30298$

$$\frac{\left(2 \cdot N_3^2 \cdot \sqrt{N_2}\right)}{\left(N_3^2+1\right) \cdot \sqrt{N_2} + \sqrt{N_2 - N_3^4 \cdot (4 \cdot N_1 + 3 \cdot N_2) - 2 \cdot N_3^2 \cdot (2 \cdot N_1 - N_2)}} - R = 0.00000$$

Definitions.

$$R - \frac{2 \cdot \sqrt{N_2} \cdot N_3^2}{\sqrt{N_2} \cdot \left(N_3^2 + 1\right) + \sqrt{N_2 - N_3^4 \cdot \left(4 \cdot N_1 + 3 \cdot N_2\right) - 2 \cdot N_3^2 \cdot \left(2 \cdot N_1 - N_2\right)}} = 0$$

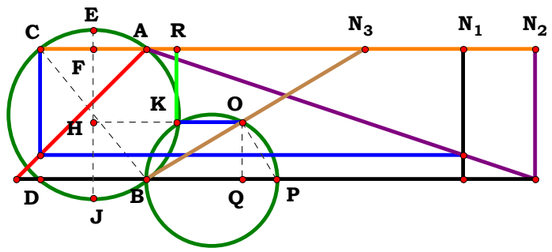
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$

$$R - \frac{2 \cdot \left(\sqrt{N_u}\right)^5 \cdot \sqrt{A \cdot B}}{\sqrt{A \cdot B} \cdot \sqrt{N_u} \cdot \left(C^2 + N_u^2\right) + \sqrt{B} \cdot \sqrt{N_u \cdot \left[A \cdot \left(C^2 - N_u^2\right) \cdot \left(C^2 + 3 \cdot N_u^2\right) - 4 \cdot B \cdot N_u^2 \cdot \left(C^2 + N_u^2\right)\right]}} = 0$$

$N_1 - \frac{X}{o} = 0$ $N_2 - \frac{Y}{p} = 0$ $N_3 - \frac{Z}{q} = 0$

$$R - \frac{2 \cdot \sqrt{Y} \cdot Z^2 \cdot \sqrt{o \cdot p}}{\sqrt{p} \cdot \sqrt{Y \cdot o \cdot (q - Z) \cdot (Z + q) \cdot \left(3 \cdot Z^2 + q^2\right) - \left[4 \cdot X \cdot Z^2 \cdot p \cdot \left(Z^2 + q^2\right)\right]} + \sqrt{o \cdot p} \cdot \sqrt{Y} \cdot \left(Z^2 + q^2\right)} = 0$$

4RST10AAB5R2



$N_1 = 2.42854$
$N_2 = 2.98063$
$N_3 = 1.67778$
$R = 0.23475$

Unit. $AB := 1$ Given. $N_1 := 2.42854$ $N_2 := 2.98063$ $N_3 := 1.67778$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

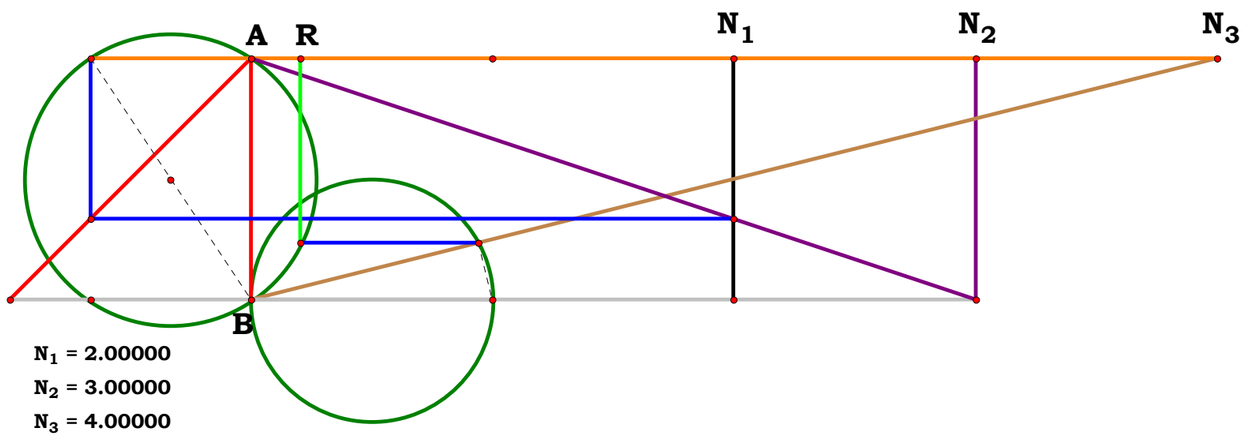
$AC := \frac{N_1}{N_2}$ $EJ := \sqrt{AB^2 + AC^2}$

$AF := \frac{AC}{2}$ $EF := \frac{EJ - AB}{2}$

$OQ := \frac{N_3}{N_3^2 + 1}$ $HJ := OQ + EF$

$HK := \sqrt{HJ \cdot (EJ - HJ)}$ $R := HK - AF$

$R = 0.234749$



$N_1 = 2.00000$
$N_2 = 3.00000$
$N_3 = 4.00000$
$R = 0.20615$

$\frac{\sqrt{N_1^2 \cdot N_3^2 \cdot (N_3^2+2) + N_1^2 + 4 \cdot N_2^2 \cdot N_3 \cdot ((N_3^2 - N_3)+1)} - N_1 \cdot (N_3^2+1)}{2 \cdot N_2 \cdot (N_3^2+1)} - R = 0.00000$

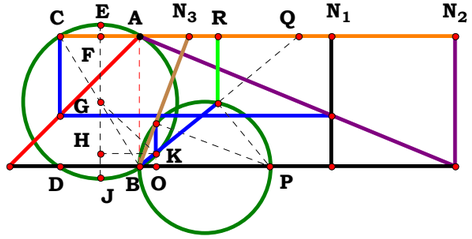
Definitions.

$$R - \frac{\sqrt{N_1^2 \cdot N_3^2 \cdot \left(N_3^2 + 2\right) + N_1^2 + 4 \cdot N_2^2 \cdot N_3 \cdot \left(N_3^2 - N_3 + 1\right)} - N_1 \cdot \left(N_3^2 + 1\right)}{2 \cdot N_2 \cdot \left(N_3^2 + 1\right)} = 0 \qquad N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0$$

$$R - \frac{\sqrt{4 \cdot A^2 \cdot C \cdot N_u \cdot \left(C^2 - C \cdot N_u + N_u^2\right) + B^2 \cdot \left(C^2 + N_u^2\right)^2} - B \cdot \left(C^2 + N_u^2\right)}{2 \cdot A \cdot \left(C^2 + N_u^2\right)} = 0 \qquad N_1 - \frac{X}{o} = 0 \quad N_2 - \frac{Y}{p} = 0 \quad N_3 - \frac{Z}{q} = 0$$

$$R - \frac{\sqrt{4 \cdot Y^2 \cdot Z \cdot o^2 \cdot q \cdot \left(Z^2 - Z \cdot q + q^2\right) + X^2 \cdot p^2 \cdot \left(Z^2 + q^2\right)^2} - X \cdot p \cdot \left(Z^2 + q^2\right)}{2 \cdot Y \cdot o \cdot \left(Z^2 + q^2\right)} = 0$$

4RST10AAB5R3



$N_1 = 1.46965$
$N_2 = 2.41885$
$N_3 = 0.37988$
$R = 0.59906$

Unit. $AB := 1$ **Given.** $N_1 := 1.46965$ $N_2 := 2.41885$ $N_3 := .37988$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

$AC := \frac{N_1}{N_2}$ $EJ := \sqrt{AB^2 + AC^2}$

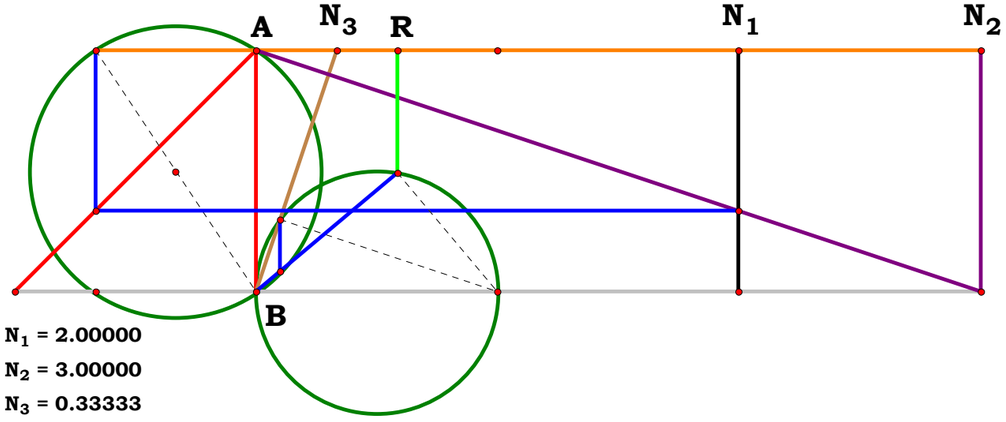
$AF := \frac{AC}{2}$ $EF := \frac{EJ - AB}{2}$

$BO := \frac{N_3^2}{N_3^2 + 1}$ $GK := \frac{EJ}{2}$

$HK := AF + BO$ $GH := \sqrt{GK^2 - HK^2}$

$KO := GK - (GH + EF)$ $AQ := \frac{BO}{KO}$

$R := \frac{AQ^2}{AQ^2 + 1}$ $R = 0.599061$



$N_1 = 2.00000$
$N_2 = 3.00000$
$N_3 = 0.33333$
$R = 0.58823$

$$\frac{(2 \cdot N_2 \cdot N_3^4)}{(N_3^2+1) \cdot (((N_2 - 2 \cdot N_1 \cdot N_3^2) + N_2 \cdot N_3^2) - \sqrt{N_2^2 - N_2 \cdot N_3^4 \cdot (4 \cdot N_1 + 3 \cdot N_2) - 2 \cdot N_2 \cdot N_3^2 \cdot (2 \cdot N_1 - N_2)})} - R = 0.00000$$

Definitions.

$$R - \frac{2 \cdot N_2 \cdot N_3^4}{\left(N_3^2 + 1\right) \cdot \left[N_2 - 2 \cdot N_1 \cdot N_3^2 + N_2 \cdot N_3^2 - \sqrt{N_2^2 - N_2 \cdot N_3^4 \cdot \left(4 \cdot N_1 + 3 \cdot N_2\right) - 2 \cdot N_2 \cdot N_3^2 \cdot \left(2 \cdot N_1 - N_2\right)}\right]} = 0$$

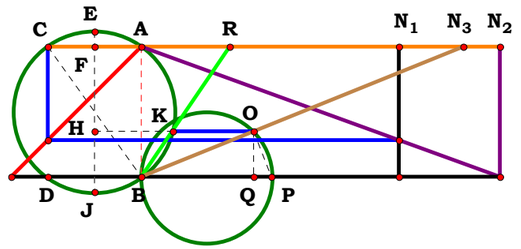
$$N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0$$

$$R - \frac{2 \cdot \left(\sqrt{A}\right)^2 \cdot N_u^4}{\left(C^2 + N_u^2\right) \cdot \left[A \cdot C^2 - \sqrt{A} \cdot \sqrt{A \cdot \left(C^2 - N_u^2\right) \cdot \left(C^2 + 3 \cdot N_u^2\right) - 4 \cdot B \cdot N_u^2 \cdot \left(C^2 + N_u^2\right)} + N_u^2 \cdot (A - 2 \cdot B)\right]} = 0$$

$$N_1 - \frac{X}{o} = 0 \quad N_2 - \frac{Y}{p} = 0 \quad N_3 - \frac{Z}{q} = 0$$

$$R - \frac{2 \cdot Y \cdot Z^4 \cdot \left(\sqrt{o}\right)^2}{\left(Z^2 + q^2\right) \cdot \left[Z^2 \cdot (Y \cdot o - 2 \cdot X \cdot p) + Y \cdot o \cdot q^2 - \sqrt{o} \cdot \sqrt{Y^2 \cdot o \cdot (q - Z) \cdot (Z + q) \cdot \left(3 \cdot Z^2 + q^2\right) - 4 \cdot Y \cdot X \cdot Z^2 \cdot p \cdot \left(Z^2 + q^2\right)}\right]} = 0$$

4RST10AAB5R4



$N_1 = 1.97331$
$N_2 = 2.74817$
$N_3 = 2.47201$
$R = 0.68280$

Unit. $AB := 1$ Given. $N_1 := 1.97331$ $N_2 := 2.74817$ $N_3 := 2.47201$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

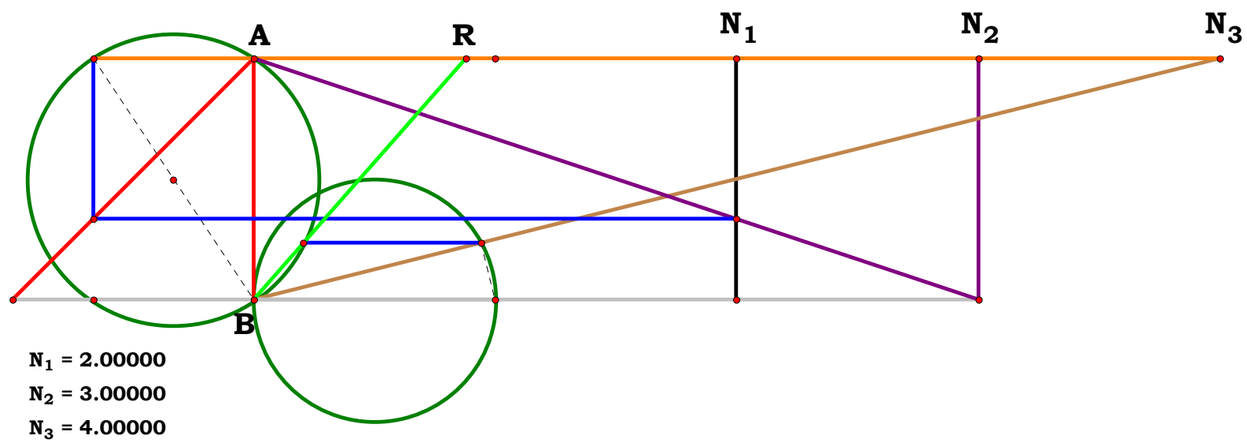
$AC := \frac{N_1}{N_2}$ $EJ := \sqrt{AB^2 + AC^2}$

$AF := \frac{AC}{2}$ $EF := \frac{EJ - AB}{2}$

$OQ := \frac{N_3}{N_3^2 + 1}$ $HJ := OQ + EF$

$HK := \sqrt{HJ \cdot (EJ - HJ)}$ $R := \frac{HK - AF}{OQ}$

$R = 0.682803$



$N_1 = 2.00000$
$N_2 = 3.00000$
$N_3 = 4.00000$
$R = 0.87614$

$\frac{\sqrt{N_1^2 \cdot N_3^4 + 4 \cdot N_2^2 \cdot N_3 \cdot (N_3^2+1) + 2 \cdot N_3^2 \cdot (N_1^2 - 2 \cdot N_2^2) + N_1^2} - N_1 \cdot (N_3^2+1)}{2 \cdot N_2 \cdot N_3} - R = 0.00000$

Definitions.

$R - \frac{\sqrt{N_1^2 \cdot N_3^4 + 4 \cdot N_2^2 \cdot N_3 \cdot (N_3^2+1) + 2 \cdot N_3^2 \cdot (N_1^2 - 2 \cdot N_2^2) + N_1^2} - N_1 \cdot (N_3^2+1)}{2 \cdot N_2 \cdot N_3} = 0$

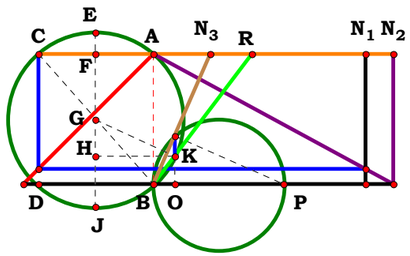
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$

$R - \frac{\sqrt{4 \cdot A^2 \cdot C \cdot N_u \cdot (C^2 - C \cdot N_u + N_u^2) + B^2 \cdot (C^2 + N_u^2)^2} - B \cdot (C^2 + N_u^2)}{2 \cdot A \cdot C \cdot N_u} = 0$

$N_1 - \frac{X}{o} = 0$ $N_2 - \frac{Y}{p} = 0$ $N_3 - \frac{Z}{q} = 0$

$R - \frac{\sqrt{4 \cdot Y^2 \cdot Z \cdot o^2 \cdot q \cdot (Z^2 - Z \cdot q + q^2) + X^2 \cdot p^2 \cdot (Z^2 + q^2)^2} - X \cdot Z^2 \cdot p - X \cdot p \cdot q^2}{2 \cdot Y \cdot Z \cdot o \cdot q} = 0$

4RST10AAB5R5



$N_1 = 1.62462$
$N_2 = 1.83771$
$N_3 = 0.43800$
$R = 0.75214$

Unit. $AB := 1$ Given. $N_1 := 1.62462$ $N_2 := 1.83771$ $N_3 := .43800$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

$AC := \frac{N_1}{N_2}$ $EJ := \sqrt{AB^2 + AC^2}$

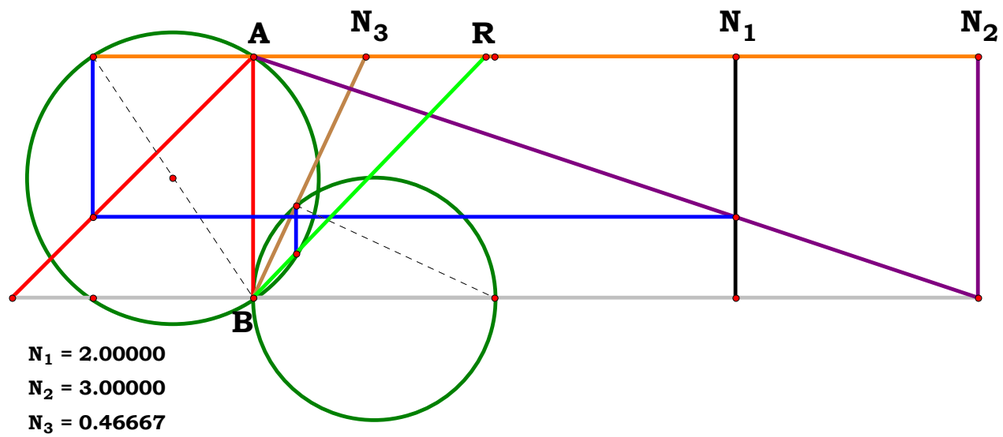
$AF := \frac{AC}{2}$ $EF := \frac{EJ - AB}{2}$

$GK := \frac{EJ}{2}$ $BO := \frac{N_3^2}{N_3^2 + 1}$

$HK := AF + BO$ $GH := \sqrt{GK^2 - HK^2}$

$KO := GK - (GH + EF)$ $R := \frac{BO}{KO}$

$R = 0.752138$



$N_1 = 2.00000$
$N_2 = 3.00000$
$N_3 = 0.46667$
$R = 0.96312$

$$\frac{2 \cdot N_3^2 \cdot \sqrt{N_2}}{(N_3^2+1) \cdot \sqrt{N_2} - \sqrt{(N_2 + 2 \cdot N_3^2 \cdot (N_2 - 2 \cdot N_1)) - N_3^4 \cdot (4 \cdot N_1 + 3 \cdot N_2)}} - R = 0.00000$$

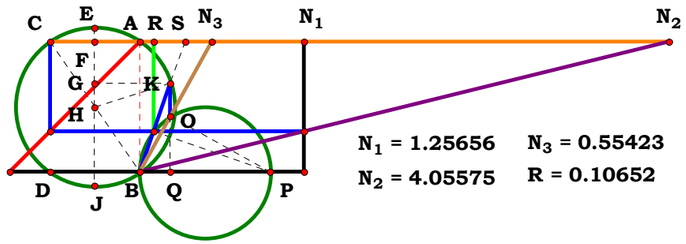
Definitions.

$$R - \frac{2 \cdot \sqrt{N_2} \cdot N_3^2}{\sqrt{N_2} \cdot (N_3^2 + 1) - \sqrt{N_2 + 2 \cdot N_3^2 \cdot (N_2 - 2 \cdot N_1) - N_3^4 \cdot (4 \cdot N_1 + 3 \cdot N_2)}} = 0 \qquad N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0$$

$$R - \frac{2 \cdot \left(\sqrt{N_u}\right)^5 \cdot \sqrt{A \cdot B}}{\sqrt{A \cdot B} \cdot \sqrt{N_u} \cdot (C^2 + N_u^2) - \sqrt{B} \cdot \sqrt{N_u \cdot \left[A \cdot C^4 - N_u^4 \cdot (3 \cdot A + 4 \cdot B) + 2 \cdot C^2 \cdot N_u^2 \cdot (A - 2 \cdot B)\right]}} = 0 \qquad N_1 - \frac{X}{o} = 0 \quad N_2 - \frac{Y}{p} = 0 \quad N_3 - \frac{Z}{q} = 0$$

$$R - \frac{2 \cdot \sqrt{Y} \cdot Z^2 \cdot \sqrt{o \cdot p}}{\sqrt{Y} \cdot \sqrt{o \cdot p} \cdot (Z^2 + q^2) - \sqrt{p} \cdot \sqrt{Y \cdot o \cdot (q - Z) \cdot (Z + q) \cdot (3 \cdot Z^2 + q^2) - 4 \cdot X \cdot Z^2 \cdot p \cdot (Z^2 + q^2)}} = 0$$

4RST10AAB6R0



Unit. $AB := 1$ Given. $N_1 := 1.25656$ $N_2 := 4.05575$ $N_3 := .55423$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

$AC := \frac{N_2 - N_1}{N_2}$ $EJ := \sqrt{AB^2 + AC^2}$

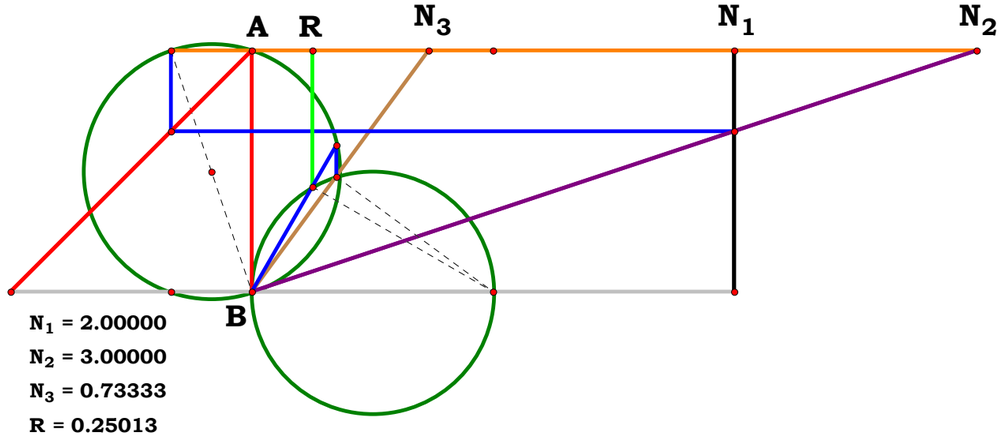
$AF := \frac{AC}{2}$ $EF := \frac{EJ - AB}{2}$

$BQ := \frac{N_3^2}{N_3^2 + 1}$ $GK := BQ + AF$

$HK := \frac{EJ}{2}$ $GH := \sqrt{HK^2 - GK^2}$

$FG := HK - (GH + EF)$ $AS := \frac{GK - AF}{AB - FG}$

$R := \frac{AS^2}{AS^2 + 1}$ $R = 0.106528$



$$\frac{(2 \cdot N_2 \cdot N_3^4)}{(N_3^2+1) \cdot (((N_2+2 \cdot N_1 \cdot N_3^2)-N_2 \cdot N_3^2)+\sqrt{(N_2^2-2 \cdot N_2 \cdot N_3^2 \cdot (N_2-2 \cdot N_1))+N_2 \cdot N_3^4 \cdot (4 \cdot N_1-7 \cdot N_2)})} - R = 0.00000$$

Definitions.

$$R - \frac{2 \cdot N_2 \cdot N_3^4}{\left(N_3^2+1\right) \cdot \left[N_2+2 \cdot N_1 \cdot N_3^2-N_2 \cdot N_3^2+\sqrt{N_2^2-2 \cdot N_2 \cdot N_3^2 \cdot \left(N_2-2 \cdot N_1\right)+N_2 \cdot N_3^4 \cdot \left(4 \cdot N_1-7 \cdot N_2\right)}\right]} = 0$$

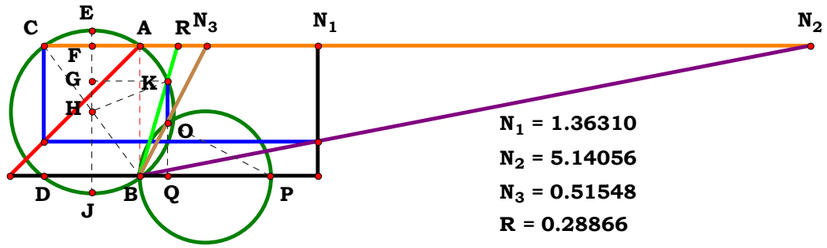
$$N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0$$

$$R - \frac{2 \cdot \left(\sqrt{A}\right)^2 \cdot N_u^4}{\left(C^2+N_u^2\right) \cdot \left[\sqrt{A} \cdot \sqrt{A \cdot C^4-A \cdot N_u^2 \cdot \left(2 \cdot C^2+7 \cdot N_u^2\right)+4 \cdot B \cdot N_u^2 \cdot \left(C^2+N_u^2\right)}+A \cdot C^2-N_u^2 \cdot (A-2 \cdot B)\right]} = 0$$

$$N_1 - \frac{X}{o} = 0 \quad N_2 - \frac{Y}{p} = 0 \quad N_3 - \frac{Z}{q} = 0$$

$$R - \frac{2 \cdot Y \cdot Z^4 \cdot \left(\sqrt{o}\right)^2}{\left(Z^2+q^2\right) \cdot \left[\sqrt{o} \cdot \sqrt{4 \cdot Y \cdot X \cdot Z^2 \cdot p \cdot \left(Z^2+q^2\right)-Y^2 \cdot o \cdot \left(7 \cdot Z^4+2 \cdot Z^2 \cdot q^2-q^4\right)}+Z^2 \cdot (2 \cdot X \cdot p-Y \cdot o)+Y \cdot o \cdot q^2\right]} = 0$$

4RST10AAB6R1



$N_1 = 1.36310$
$N_2 = 5.14056$
$N_3 = 0.51548$
$R = 0.28866$

Unit. $AB := 1$ **Given.** $N_1 := 1.36310$ $N_2 := 5.14056$ $N_3 := .51548$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

$AC := \frac{N_2 - N_1}{N_2}$ $EJ := \sqrt{AB^2 + AC^2}$

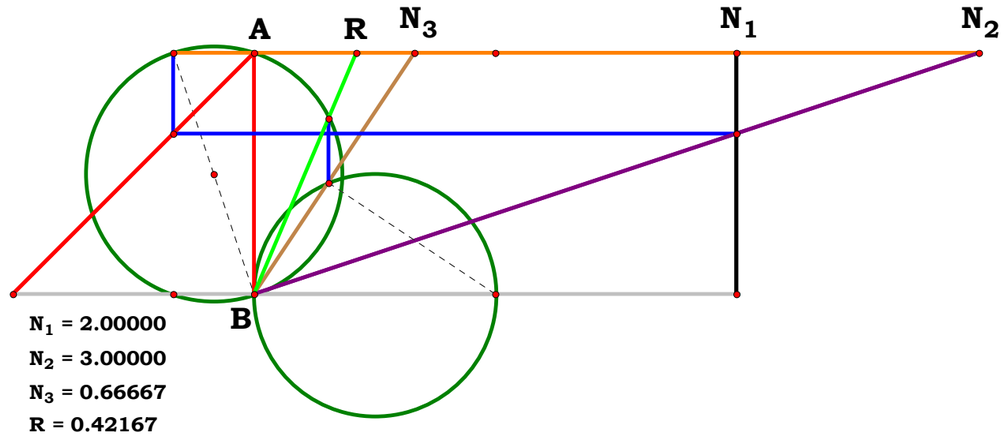
$AF := \frac{AC}{2}$ $EF := \frac{EJ - AB}{2}$

$BQ := \frac{N_3^2}{N_3^2 + 1}$ $GK := BQ + AF$

$HK := \frac{EJ}{2}$ $GH := \sqrt{HK^2 - GK^2}$

$FG := HK - (GH + EF)$ $R := \frac{GK - AF}{AB - FG}$

$R = 0.288656$



$N_1 = 2.00000$
$N_2 = 3.00000$
$N_3 = 0.66667$
$R = 0.42167$

$$\frac{\left(2 \cdot N_3^2 \cdot \sqrt{N_2}\right)}{\left(N_3^2+1\right) \cdot \sqrt{N_2} + \sqrt{\left(N_2 - 2 \cdot N_3^2 \cdot \left(N_2 - 2 \cdot N_1\right)\right) + N_3^4 \cdot \left(4 \cdot N_1 - 7 \cdot N_2\right)}} - R = 0.00000$$

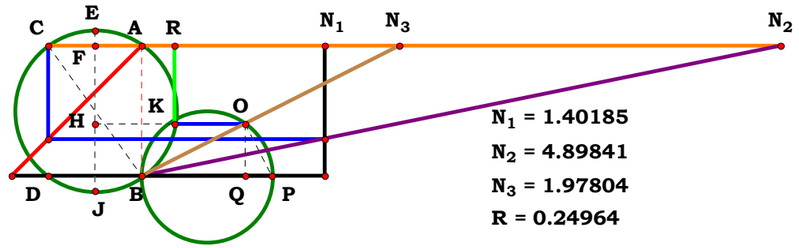
Definitions.

$$R - \frac{2 \cdot \sqrt{N_2} \cdot N_3^2}{\sqrt{N_2} \cdot \left(N_3^2 + 1\right) + \sqrt{N_2 - 2 \cdot N_3^2 \cdot \left(N_2 - 2 \cdot N_1\right) + N_3^4 \cdot \left(4 \cdot N_1 - 7 \cdot N_2\right)}} = 0 \qquad N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0$$

$$R - \frac{2 \cdot \left(\sqrt{N_u}\right)^5 \cdot \sqrt{A \cdot B}}{\sqrt{B} \cdot \sqrt{N_u \cdot \left(A \cdot C^4 - 7 \cdot A \cdot N_u^4 + 4 \cdot B \cdot N_u^4 - 2 \cdot A \cdot C^2 \cdot N_u^2 + 4 \cdot B \cdot C^2 \cdot N_u^2\right)} + \sqrt{N_u} \cdot \sqrt{A \cdot B} \cdot \left(C^2 + N_u^2\right)} = 0 \qquad N_1 - \frac{X}{o} = 0 \quad N_2 - \frac{Y}{p} = 0 \quad N_3 - \frac{Z}{q} = 0$$

$$R - \frac{2 \cdot \sqrt{Y} \cdot Z^2 \cdot \sqrt{o \cdot p}}{\sqrt{p} \cdot \sqrt{4 \cdot X \cdot Z^2 \cdot p \cdot \left(Z^2 + q^2\right) - Y \cdot o \cdot \left(7 \cdot Z^4 + 2 \cdot Z^2 \cdot q^2 - q^4\right)} + \sqrt{o \cdot p} \cdot \sqrt{Y} \cdot \left(Z^2 + q^2\right)} = 0$$

4RST10AAB6R2



$N_1 = 1.40185$
$N_2 = 4.89841$
$N_3 = 1.97804$
$R = 0.24964$

Unit. $AB := 1$ Given. $N_1 := 1.40185$ $N_2 := 4.89841$ $N_3 := 1.97804$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

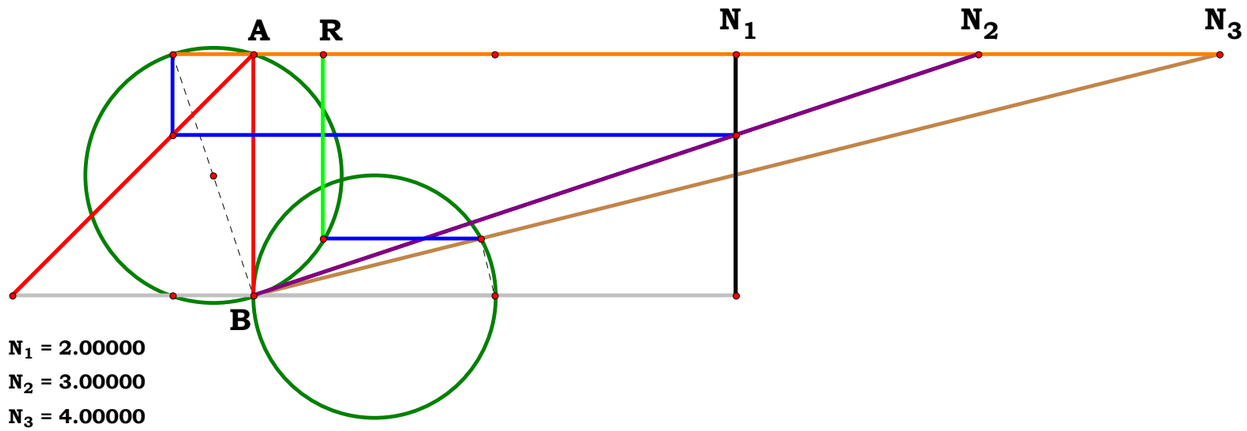
$AC := \frac{N_2 - N_1}{N_2}$ $EJ := \sqrt{AB^2 + AC^2}$

$AF := \frac{AC}{2}$ $EF := \frac{EJ - AB}{2}$

$OQ := \frac{N_3}{N_3^2 + 1}$ $HJ := OQ + EF$

$HK := \sqrt{HJ \cdot (EJ - HJ)}$ $R := HK - AF$

$R = 0.249644$



$N_1 = 2.00000$
$N_2 = 3.00000$
$N_3 = 4.00000$
$R = 0.28908$

$$\frac{(N_3^2+1)\cdot(N_1-N_2)+\sqrt{((N_3^4\cdot(N_1-N_2)^2+4\cdot N_2^2\cdot N_3\cdot(N_3^2+1)+2\cdot N_3^2\cdot(N_1^2-2\cdot N_1\cdot N_2-N_2^2)+N_1^2)-2\cdot N_1\cdot N_2)+N_2^2}}{2\cdot N_2\cdot(N_3^2+1)} - R = 0.00000$$

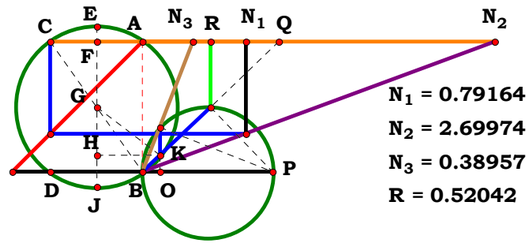
Definitions.

$$R - \frac{\left(N_3^2+1\right)\cdot\left(N_1-N_2\right)+\sqrt{N_3^4\cdot\left(N_1-N_2\right)^2+4\cdot N_2^2\cdot N_3\cdot\left(N_3^2+1\right)+2\cdot N_3^2\cdot\left(N_1^2-2\cdot N_1\cdot N_2-N_2^2\right)+N_1^2-2\cdot N_1\cdot N_2+N_2^2}}{2\cdot N_2\cdot\left(N_3^2+1\right)} = 0 \qquad N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0$$

$$R - \frac{\sqrt{A^2\cdot\left(C^4+4\cdot C^3\cdot N_u-2\cdot C^2\cdot N_u^2+4\cdot C\cdot N_u^3+N_u^4\right)-B\cdot\left(C^2+N_u^2\right)^2\cdot(2\cdot A-B)-C^2\cdot(A-B)-N_u^2\cdot(A-B)}}{2\cdot A\cdot\left(C^2+N_u^2\right)} = 0 \qquad N_1 - \frac{X}{o} = 0 \quad N_2 - \frac{Y}{p} = 0 \quad N_3 - \frac{Z}{q} = 0$$

$$R - \frac{\left(N_3^2+1\right)\cdot\left(N_1-N_2\right)+\sqrt{N_3^4\cdot\left(N_1-N_2\right)^2+4\cdot N_2^2\cdot N_3\cdot\left(N_3^2+1\right)+2\cdot N_3^2\cdot\left(N_1^2-2\cdot N_1\cdot N_2-N_2^2\right)+N_1^2-2\cdot N_1\cdot N_2+N_2^2}}{2\cdot N_2\cdot\left(N_3^2+1\right)} = 0$$

4RST10AAB6R3



$N_1 = 0.79164$
$N_2 = 2.69974$
$N_3 = 0.38957$
$R = 0.52042$

Unit. $AB := 1$ **Given.** $N_1 := .79164$ $N_2 := 2.69974$ $N_3 := .38957$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

$AC := \frac{N_2 - N_1}{N_2}$ $EJ := \sqrt{AB^2 + AC^2}$

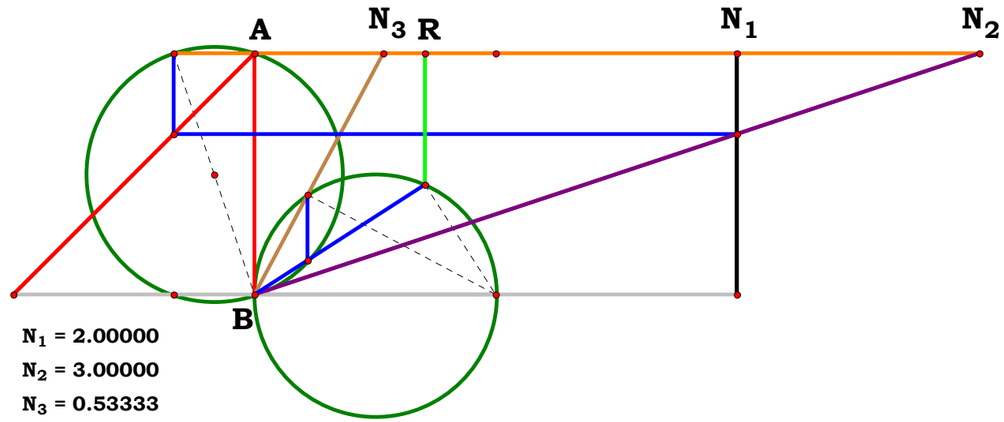
$AF := \frac{AC}{2}$ $EF := \frac{EJ - AB}{2}$

$BO := \frac{N_3^2}{N_3^2 + 1}$ $GK := \frac{EJ}{2}$

$HK := AF + BO$ $GH := \sqrt{GK^2 - HK^2}$

$KO := GK - (GH + EF)$ $AQ := \frac{BO}{KO}$

$R := \frac{AQ^2}{AQ^2 + 1}$ $R = 0.520417$



$N_1 = 2.00000$
$N_2 = 3.00000$
$N_3 = 0.53333$
$R = 0.70448$

$$\frac{(2 \cdot N_2 \cdot N_3^4)}{(N_3^2+1) \cdot \left((N_2 + N_3^2 \cdot (2 \cdot N_1 - N_2)) - \sqrt{N_2 \cdot N_3^4 \cdot (4 \cdot N_1 - 7 \cdot N_2) + 2 \cdot N_2 \cdot N_3^2 \cdot (2 \cdot N_1 - N_2) + N_2^2}\right)} - R = 0.00000$$

Definitions.

$$R - \frac{2 \cdot N_2 \cdot N_3^4}{\left(N_3^2 + 1\right) \cdot \left[N_2 + N_3^2 \cdot \left(2 \cdot N_1 - N_2\right) - \sqrt{N_2 \cdot N_3^4 \cdot \left(4 \cdot N_1 - 7 \cdot N_2\right) + 2 \cdot N_2 \cdot N_3^2 \cdot \left(2 \cdot N_1 - N_2\right) + N_2^2}\right]} = 0$$

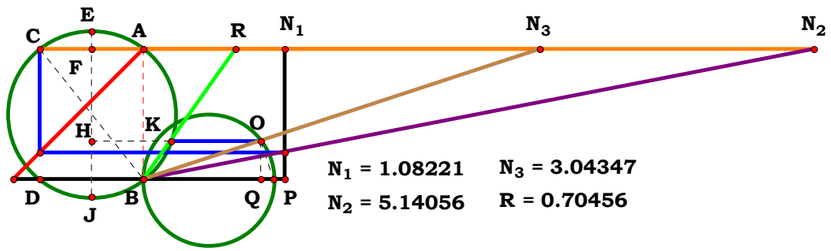
$$N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0$$

$$R - \frac{2 \cdot \left(\sqrt{A}\right)^2 \cdot N_u^4}{\left(C^2 + N_u^2\right) \cdot \left[A \cdot C^2 - N_u^2 \cdot (A - 2 \cdot B) - \sqrt{A} \cdot \sqrt{A \cdot C^4 - N_u^4 \cdot (7 \cdot A - 4 \cdot B) - 2 \cdot C^2 \cdot N_u^2 \cdot (A - 2 \cdot B)}\right]} = 0$$

$$N_1 - \frac{X}{o} = 0 \quad N_2 - \frac{Y}{p} = 0 \quad N_3 - \frac{Z}{q} = 0$$

$$R - \frac{2 \cdot Y \cdot Z^4 \cdot \left(\sqrt{o}\right)^2}{\left(Z^2 + q^2\right) \cdot \left[Z^2 \cdot (2 \cdot X \cdot p - Y \cdot o) + Y \cdot o \cdot q^2 - \sqrt{o} \cdot \sqrt{4 \cdot Y \cdot X \cdot Z^2 \cdot p \cdot \left(Z^2 + q^2\right) - Y^2 \cdot o \cdot \left(7 \cdot Z^4 + 2 \cdot Z^2 \cdot q^2 - q^4\right)}\right]} = 0$$

4RST10AAB6R4



Unit. $AB := 1$ Given. $N_1 := 1.08221$ $N_2 := 5.14056$ $N_3 := 3.04347$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

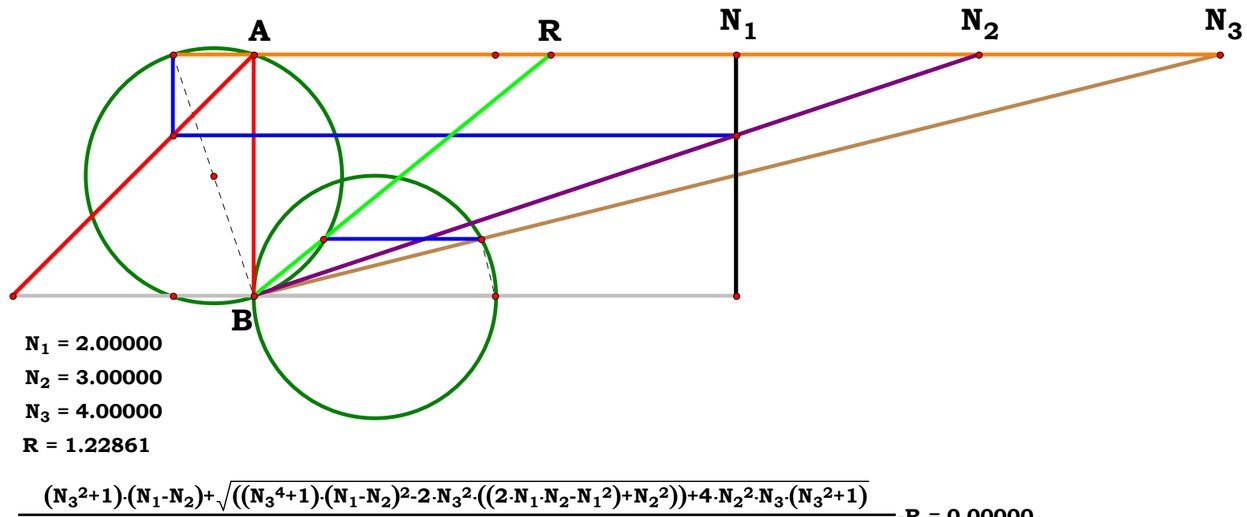
$AC := \frac{N_2 - N_1}{N_2}$ $EJ := \sqrt{AB^2 + AC^2}$

$AF := \frac{AC}{2}$ $EF := \frac{EJ - AB}{2}$

$OQ := \frac{N_3}{N_3^2 + 1}$ $HJ := OQ + EF$

$HK := \sqrt{HJ \cdot (EJ - HJ)}$ $R := \frac{HK - AF}{OQ}$

$R = 0.704559$



$\frac{(N_3^2+1)\cdot(N_1-N_2)+\sqrt{((N_3^4+1)\cdot(N_1-N_2)^2-2\cdot N_3^2\cdot((2\cdot N_1\cdot N_2-N_1^2)+N_2^2))+4\cdot N_2^2\cdot N_3\cdot(N_3^2+1)}}{(2\cdot N_2\cdot N_3)}-R = 0.00000$

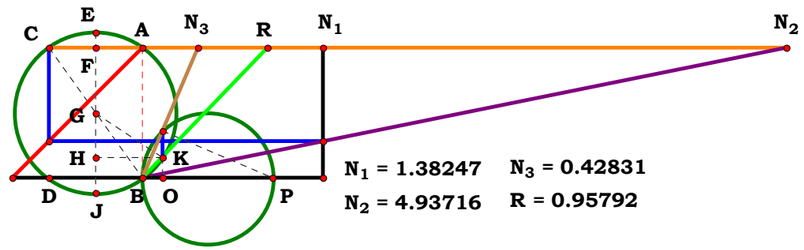
Definitions.

$R - \frac{\left(N_3^2+1\right)\cdot\left(N_1-N_2\right)+\sqrt{\left(N_3^4+1\right)\cdot\left(N_1-N_2\right)^2-2\cdot N_3^2\cdot\left(2\cdot N_1\cdot N_2-N_1^2+N_2^2\right)+4\cdot N_2^2\cdot N_3\cdot\left(N_3^2+1\right)}}{2\cdot N_2\cdot N_3} = 0$ $N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$

$R - \frac{\sqrt{A^2\cdot C^4+2\cdot A^2\cdot C^2\cdot N_u\cdot\left(2\cdot C-N_u\right)+A^2\cdot N_u^3\cdot\left(4\cdot C+N_u\right)-B\cdot\left(C^2+N_u^2\right)^2\cdot(2\cdot A-B)-C^2\cdot(A-B)-N_u^2\cdot(A-B)}}{2\cdot N_u\cdot A\cdot C} = 0$ $N_1 - \frac{X}{o} = 0$ $N_2 - \frac{Y}{p} = 0$ $N_3 - \frac{Z}{q} = 0$

$R - \frac{\sqrt{Y^2\cdot o^2\cdot\left(Z^4+4\cdot Z^3\cdot q-2\cdot Z^2\cdot q^2+4\cdot Z\cdot q^3+q^4\right)+X\cdot p\cdot\left(Z^2+q^2\right)^2\cdot(X\cdot p-2\cdot Y\cdot o)}+\left(Z^2+q^2\right)\cdot(X\cdot p-Y\cdot o)}{2\cdot Y\cdot Z\cdot o\cdot q} = 0$

4RST10AAB6R5



Unit. $AB := 1$ Given. $N_1 := 1.38247$ $N_2 := 4.93716$ $N_3 := .42831$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

$AC := \frac{N_2 - N_1}{N_2}$ $EJ := \sqrt{AB^2 + AC^2}$

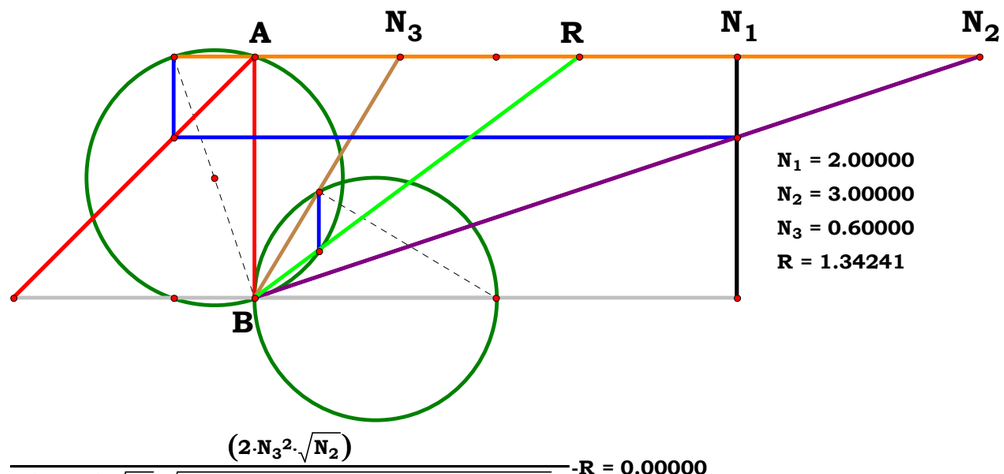
$AF := \frac{AC}{2}$ $EF := \frac{EJ - AB}{2}$

$GK := \frac{EJ}{2}$ $BO := \frac{N_3^2}{N_3^2 + 1}$

$HK := AF + BO$ $GH := \sqrt{GK^2 - HK^2}$

$KO := GK - (GH + EF)$ $R := \frac{BO}{KO}$

$R = 0.957918$



$\frac{(2 \cdot N_3^2 \cdot \sqrt{N_2})}{(N_3^2+1) \cdot \sqrt{N_2 - \sqrt{(N_2 - 2 \cdot N_3^2 \cdot (N_2 - 2 \cdot N_1)) + N_3^4 \cdot (4 \cdot N_1 - 7 \cdot N_2)}}} - R = 0.00000$

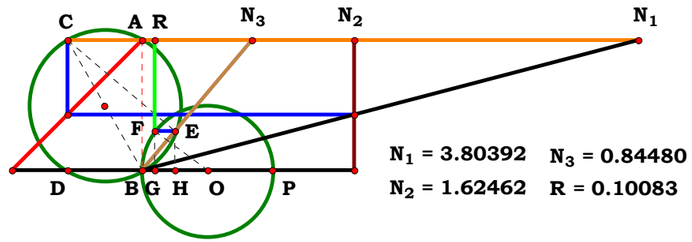
Definitions.

$$R - \frac{2 \cdot \sqrt{N_2} \cdot N_3^2}{\sqrt{N_2} \cdot \left(N_3^2 + 1\right) - \sqrt{N_2 - 2 \cdot N_3^2 \cdot \left(N_2 - 2 \cdot N_1\right) + N_3^4 \cdot \left(4 \cdot N_1 - 7 \cdot N_2\right)}} = 0 \qquad N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0$$

$$R - \frac{2 \cdot \left(\sqrt{N_u}\right)^5 \cdot \sqrt{A \cdot B}}{\sqrt{A \cdot B} \cdot \sqrt{N_u} \cdot \left(C^2 + N_u^2\right) - \sqrt{B} \cdot \sqrt{-N_u \cdot \left[N_u^4 \cdot (7 \cdot A - 4 \cdot B) - A \cdot C^4 + 2 \cdot C^2 \cdot N_u^2 \cdot (A - 2 \cdot B)\right]}} = 0 \qquad N_1 - \frac{X}{o} = 0 \quad N_2 - \frac{Y}{p} = 0 \quad N_3 - \frac{Z}{q} = 0$$

$$R - \frac{2 \cdot \sqrt{Y} \cdot Z^2 \cdot \sqrt{o \cdot p}}{\sqrt{o \cdot p} \cdot \sqrt{Y} \cdot \left(Z^2 + q^2\right) - \sqrt{p} \cdot \sqrt{4 \cdot X \cdot Z^2 \cdot p \cdot \left(Z^2 + q^2\right) - Y \cdot o \cdot \left(7 \cdot Z^4 + 2 \cdot Z^2 \cdot q^2 - q^4\right)}} = 0$$

4RST10BAB1R0



Unit. $AB := 1$ Given. $N_1 := 3.80392$ $N_2 := 1.62462$ $N_3 := .84480$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

$AC := \frac{N_1 - N_2}{N_1}$ $BN_3 := \sqrt{AB^2 + N_3^2}$

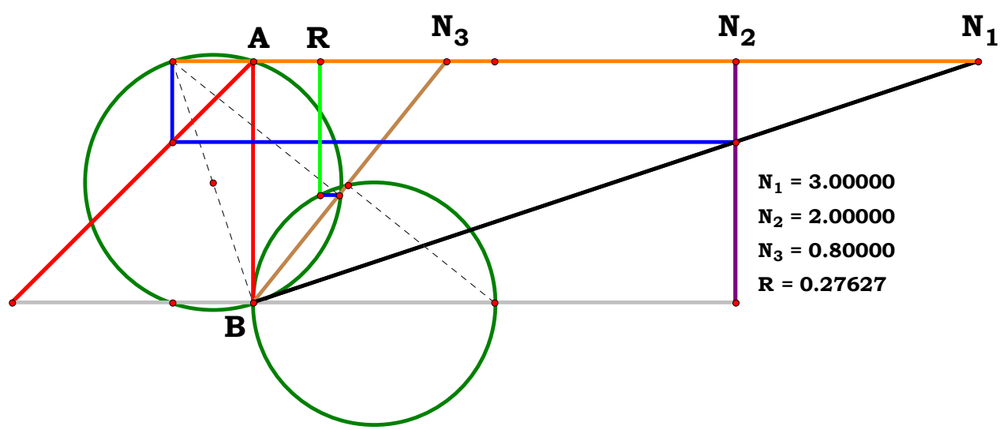
$CN_3 := AC + N_3$ $EN_3 := \frac{N_3 \cdot CN_3}{BN_3}$

$BE := BN_3 - EN_3$ $EH := \frac{BE}{BN_3}$

$FG := EH$ $BP := AB$

$FO := \frac{BP}{2}$ $GO := \sqrt{FO^2 - FG^2}$

$R := FO - GO$ $R = 0.100834$



$\frac{N_1 \cdot (N_3^2+1) - \sqrt{(2 \cdot N_1 \cdot N_3 - N_1 \cdot N_3^2 - 3 \cdot N_1 - 2 \cdot N_2 \cdot N_3) \cdot ((N_1 - N_1 \cdot N_3^2 - 2 \cdot N_1 \cdot N_3) + 2 \cdot N_2 \cdot N_3)}}{2 \cdot N_1 \cdot (N_3^2+1)} - R = 0.00000$

Definitions.

$$R - \frac{\sqrt{\left(N_3^2 + 1\right)^2} - \sqrt{N_3^2 \cdot \left(N_3^2 + 2\right) - 4 \cdot AC \cdot N_3 \cdot \left(AC \cdot N_3 - 2\right) - 3}}{2 \cdot \sqrt{N_3^4 + 2 \cdot N_3^2 + 1}} = 0$$

$$R - \frac{N_1 \cdot \left(N_3^2 + 1\right) - \sqrt{\left(2 \cdot N_1 \cdot N_3 - N_1 \cdot N_3^2 - 3 \cdot N_1 - 2 \cdot N_2 \cdot N_3\right) \cdot \left(N_1 - N_1 \cdot N_3^2 - 2 \cdot N_1 \cdot N_3 + 2 \cdot N_2 \cdot N_3\right)}}{2 \cdot N_1 \cdot \left(N_3^2 + 1\right)} = 0$$

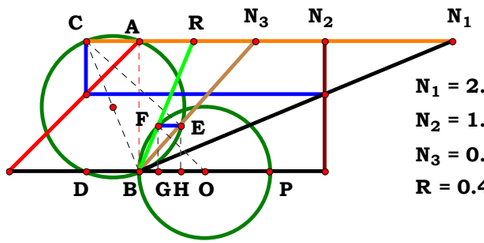
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$

$$R - \frac{B \cdot \left(C^2 + N_u^2\right) - \sqrt{\left(B \cdot N_u^2 - B \cdot C^2 - 2 \cdot A \cdot C \cdot N_u + 2 \cdot B \cdot C \cdot N_u\right) \cdot \left(3 \cdot B \cdot C^2 + B \cdot N_u^2 + 2 \cdot A \cdot C \cdot N_u - 2 \cdot B \cdot C \cdot N_u\right)}}{2 \cdot \left(C^2 + N_u^2\right) \cdot B} = 0$$

$N_1 - \frac{X}{o} = 0$ $N_2 - \frac{Y}{p} = 0$ $N_3 - \frac{Z}{q} = 0$

$$R - \frac{X \cdot p \cdot \left(Z^2 + q^2\right) - \sqrt{[X \cdot p \cdot (Z - q) \cdot (Z + q) + 2 \cdot Z \cdot q \cdot (X \cdot p - Y \cdot o)] \cdot \left(X \cdot Z^2 \cdot p + 3 \cdot X \cdot p \cdot q^2 - 2 \cdot X \cdot Z \cdot p \cdot q + 2 \cdot Y \cdot Z \cdot o \cdot q\right)}}{2 \cdot X \cdot \left(Z^2 + q^2\right) \cdot p} = 0$$

4RST10BAB1R1



$N_1 = 2.39948$
$N_2 = 1.42122$
$N_3 = 0.89323$
$R = 0.41439$

Unit. $AB := 1$ Given. $N_1 := 2.39948$ $N_2 := 1.42122$ $N_3 := .89323$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

$AC := \frac{N_1 - N_2}{N_1}$ $BN_3 := \sqrt{AB^2 + N_3^2}$

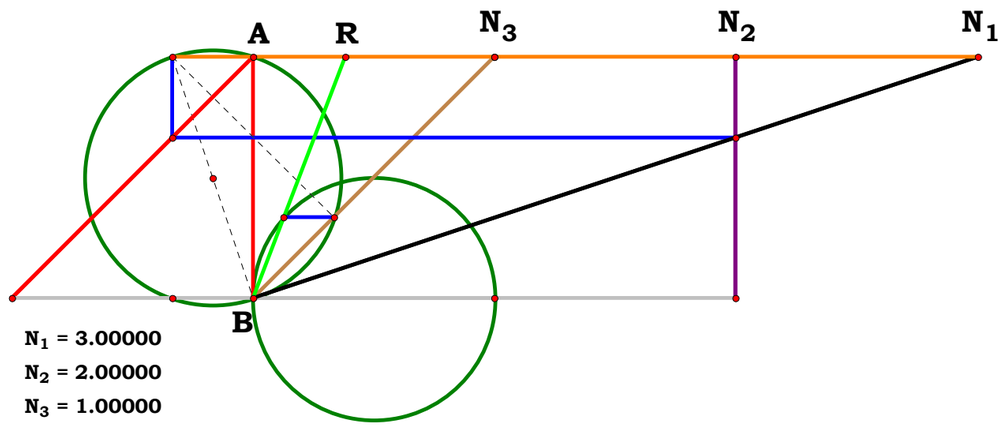
$CN_3 := AC + N_3$ $EN_3 := \frac{N_3 \cdot CN_3}{BN_3}$

$BE := BN_3 - EN_3$ $EH := \frac{BE}{BN_3}$

$FG := EH$ $BP := AB$

$FO := \frac{BP}{2}$ $GO := \sqrt{FO^2 - FG^2}$

$BG := FO - GO$ $R := \frac{BG}{EH}$



$N_1 = 3.00000$
$N_2 = 2.00000$
$N_3 = 1.00000$
$R = 0.38197$

$R = 0.414392$

$$\frac{N_1\cdot(N_3^2+1)-\sqrt{(((3\cdot N_1+N_1\cdot N_3^2)-2\cdot N_1\cdot N_3)+2\cdot N_2\cdot N_3)\cdot(((N_1\cdot N_3^2-N_1)+2\cdot N_1\cdot N_3)-2\cdot N_2\cdot N_3)}}{(2\cdot((N_1-N_1\cdot N_3)+N_2\cdot N_3))} - R = 0.00000$$

Definitions.

$$R - \frac{\left[\sqrt{N_3^4 - 4\cdot AC\cdot N_3\cdot(AC\cdot N_3 - 2) + 2\cdot N_3^2 - 3} - \sqrt{\left(N_3^2+1\right)^2}\right]\cdot\left(N_3^2+1\right)}{2\cdot\sqrt{\left(N_3^2+1\right)^2}\cdot(AC\cdot N_3 - 1)} = 0$$

$$R - \frac{N_1\cdot\left(N_3^2+1\right) - \sqrt{\left(3\cdot N_1 + N_1\cdot N_3^2 - 2\cdot N_1\cdot N_3 + 2\cdot N_2\cdot N_3\right)\cdot\left(N_1\cdot N_3^2 - N_1 + 2\cdot N_1\cdot N_3 - 2\cdot N_2\cdot N_3\right)}}{2\cdot\left(N_1 - N_1\cdot N_3 + N_2\cdot N_3\right)} = 0$$

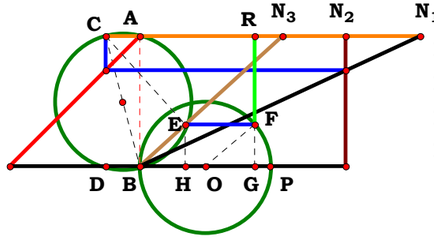
$$R - \frac{B\cdot\left(C^2+N_u^2\right) - \sqrt{\left(B\cdot N_u^2 - B\cdot C^2 - 2\cdot A\cdot C\cdot N_u + 2\cdot B\cdot C\cdot N_u\right)\cdot\left(3\cdot B\cdot C^2 + B\cdot N_u^2 + 2\cdot A\cdot C\cdot N_u - 2\cdot B\cdot C\cdot N_u\right)}}{2\cdot C\cdot\left(B\cdot C + A\cdot N_u - B\cdot N_u\right)} = 0$$

$$R - \frac{\sqrt{X^2\cdot p^2\cdot\left(Z^2 - 2\cdot Z\cdot q + 3\cdot q^2\right)\cdot\left(Z^2 + 2\cdot Z\cdot q - q^2\right) + 8\cdot X\cdot Y\cdot Z\cdot o\cdot p\cdot q^2\cdot(Z-q) - 4\cdot Y^2\cdot Z^2\cdot o^2\cdot q^2} - X\cdot p\cdot\left(Z^2+q^2\right)}{2\cdot q\cdot(X\cdot Z\cdot p - Y\cdot Z\cdot o - X\cdot p\cdot q)} = 0$$

$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$

$N_1 - \frac{X}{o} = 0$ $N_2 - \frac{Y}{p} = 0$ $N_3 - \frac{Z}{q} = 0$

4RST10BAB1R2



$N_1 = 2.14765$

$N_2 = 1.57619$

$N_3 = 1.09663$

$R = 0.88291$

Unit. $AB := 1$ Given. $N_1 := 2.14765$ $N_2 := 1.57619$ $N_3 := 1.09663$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

$AC := \frac{N_1 - N_2}{N_1}$ $BN_3 := \sqrt{AB^2 + N_3^2}$

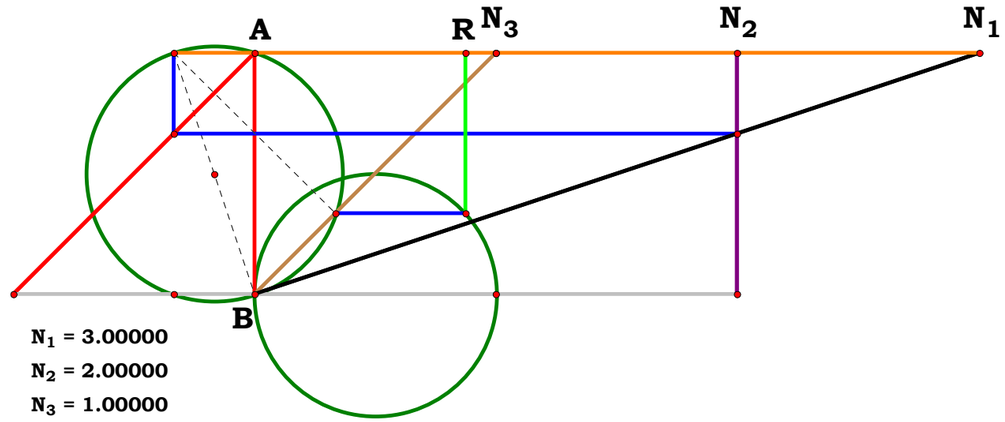
$CN_3 := AC + N_3$ $EN_3 := \frac{N_3 \cdot CN_3}{BN_3}$

$BE := BN_3 - EN_3$ $EH := \frac{BE}{BN_3}$

$FG := EH$ $BP := AB$

$FO := \frac{BP}{2}$ $GO := \sqrt{FO^2 - FG^2}$

$R := FO + GO$ $R = 0.882908$



$N_1 = 3.00000$

$N_2 = 2.00000$

$N_3 = 1.00000$

$R = 0.87268$

$$\frac{N_1 \cdot (N_3^2+1) + \sqrt{(((3 \cdot N_1 + N_1 \cdot N_3^2) - 2 \cdot N_1 \cdot N_3) + 2 \cdot N_2 \cdot N_3) \cdot (((N_1 \cdot N_3^2 - N_1) + 2 \cdot N_1 \cdot N_3) - 2 \cdot N_2 \cdot N_3)}}{2 \cdot N_1 \cdot (N_3^2+1)} - R = 0.00000$$

Definitions.

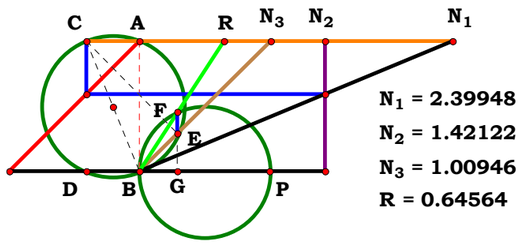
$$R - \frac{\sqrt{8 \cdot AC \cdot N_3 - 4 \cdot AC^2 \cdot N_3^2 + N_3^4 + 2 \cdot N_3^2 - 3} + \sqrt{\left(N_3^2 + 1\right)^2}}{2 \cdot \sqrt{\left(N_3^2 + 1\right)^2}} = 0$$

$$R - \frac{N_1 + N_1 \cdot N_3^2 + \sqrt{\left(3 \cdot N_1 + N_1 \cdot N_3^2 - 2 \cdot N_1 \cdot N_3 + 2 \cdot N_2 \cdot N_3\right) \cdot \left(N_1 \cdot N_3^2 - N_1 + 2 \cdot N_1 \cdot N_3 - 2 \cdot N_2 \cdot N_3\right)}}{2 \cdot N_1 \cdot \left(N_3^2 + 1\right)} = 0 \qquad N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0$$

$$R - \frac{\sqrt{\left(B \cdot N_u^2 - B \cdot C^2 - 2 \cdot A \cdot C \cdot N_u + 2 \cdot B \cdot C \cdot N_u\right) \cdot \left(3 \cdot B \cdot C^2 + B \cdot N_u^2 + 2 \cdot A \cdot C \cdot N_u - 2 \cdot B \cdot C \cdot N_u\right)} + B \cdot \left(C^2 + N_u^2\right)}{2 \cdot \left(C^2 + N_u^2\right) \cdot B} = 0 \qquad N_1 - \frac{X}{o} = 0 \quad N_2 - \frac{Y}{p} = 0 \quad N_3 - \frac{Z}{q} = 0$$

$$R - \frac{\sqrt{\left(X \cdot Z^2 \cdot p - X \cdot p \cdot q^2 + 2 \cdot X \cdot Z \cdot p \cdot q - 2 \cdot Y \cdot Z \cdot o \cdot q\right) \cdot \left(X \cdot Z^2 \cdot p + 3 \cdot X \cdot p \cdot q^2 - 2 \cdot X \cdot Z \cdot p \cdot q + 2 \cdot Y \cdot Z \cdot o \cdot q\right)} + X \cdot p \cdot \left(Z^2 + q^2\right)}{2 \cdot X \cdot \left(Z^2 + q^2\right) \cdot p} = 0$$

4RST10BAB1R3



$N_1 = 2.39948$
$N_2 = 1.42122$
$N_3 = 1.00946$
$R = 0.64564$

Unit. $AB := 1$ **Given.** $N_1 := 2.39948$ $N_2 := 1.42122$ $N_3 := 1.00946$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

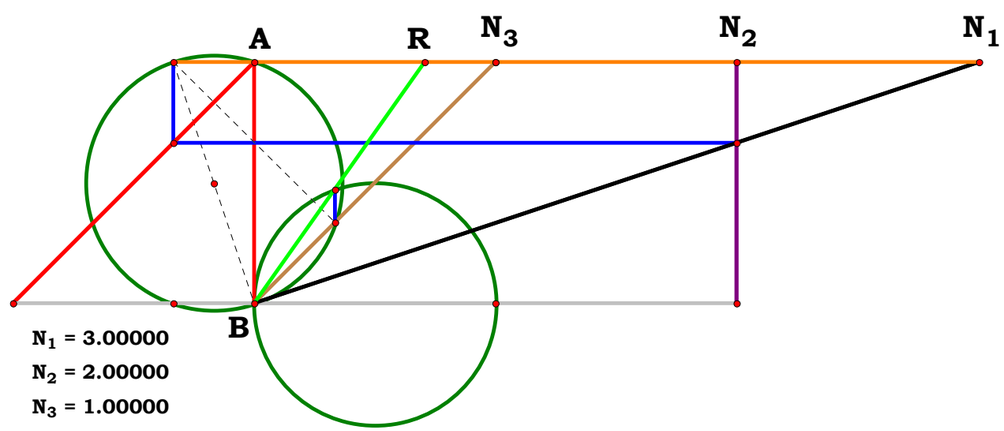
$AC := \frac{N_1 - N_2}{N_1}$ $BN_3 := \sqrt{AB^2 + N_3^2}$

$CN_3 := AC + N_3$ $EN_3 := \frac{N_3 \cdot CN_3}{BN_3}$

$BE := BN_3 - EN_3$ $BG := \frac{N_3 \cdot BE}{BN_3}$

$BP := AB$ $FG := \sqrt{BG \cdot (BP - BG)}$

$R := \frac{BG}{FG}$ $R = 0.645641$



$N_1 = 3.00000$
$N_2 = 2.00000$
$N_3 = 1.00000$
$R = 0.70711$

$\frac{N_3 \cdot ((N_1 - N_1 \cdot N_3) + N_2 \cdot N_3)}{\sqrt{N_3 \cdot ((N_1 - N_1 \cdot N_3) + N_2 \cdot N_3) \cdot ((N_1 + 2 \cdot N_1 \cdot N_3^2) - N_2 \cdot N_3^2 - N_1 \cdot N_3)}} - R = 0.00000$

Definitions.

$$R - \frac{N_3 \cdot \sqrt{\left(N_3^2 + 1\right)^2} \cdot \left(1 - AC \cdot N_3\right)}{\left(N_3^2 + 1\right) \cdot \sqrt{-N_3 \cdot \left(AC \cdot N_3 - 1\right) \cdot \left(N_3^2 - N_3 + AC \cdot N_3^2 + 1\right)}} = 0$$

$$R - \frac{N_3 \cdot \left(N_1 - N_1 \cdot N_3 + N_2 \cdot N_3\right)}{\sqrt{N_3 \cdot \left(N_1 - N_1 \cdot N_3 + N_2 \cdot N_3\right) \cdot \left(N_1 + 2 \cdot N_1 \cdot N_3^2 - N_2 \cdot N_3^2 - N_1 \cdot N_3\right)}} = 0$$

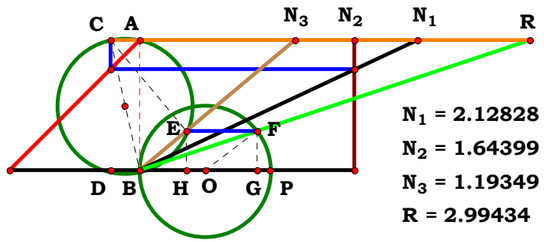
$$R - \frac{N_u \cdot \left[B \cdot C + N_u \cdot (A - B)\right]}{\sqrt{N_u \cdot \left(B \cdot C + A \cdot N_u - B \cdot N_u\right) \cdot \left[B \cdot C^2 - N_u^2 \cdot (A - 2 \cdot B) - B \cdot C \cdot N_u\right]}} = 0$$

$$R - \frac{Z \cdot (Y \cdot Z \cdot o - X \cdot Z \cdot p + X \cdot p \cdot q)}{\sqrt{Z \cdot (X \cdot Z \cdot p - Y \cdot Z \cdot o - X \cdot p \cdot q) \cdot \left(Y \cdot Z^2 \cdot o - 2 \cdot X \cdot Z^2 \cdot p - X \cdot p \cdot q^2 + X \cdot Z \cdot p \cdot q\right)}} = 0$$

$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$

$N_1 - \frac{X}{o} = 0$ $N_2 - \frac{Y}{p} = 0$ $N_3 - \frac{Z}{q} = 0$

4RST10BAB1R4



$N_1 = 2.12828$
$N_2 = 1.64399$
$N_3 = 1.19349$
$R = 2.99434$

Unit. $AB := 1$ Given. $N_1 := 2.12828$ $N_2 := 1.64399$ $N_3 := 1.19349$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

$AC := \frac{N_1 - N_2}{N_1}$ $BN_3 := \sqrt{AB^2 + N_3^2}$

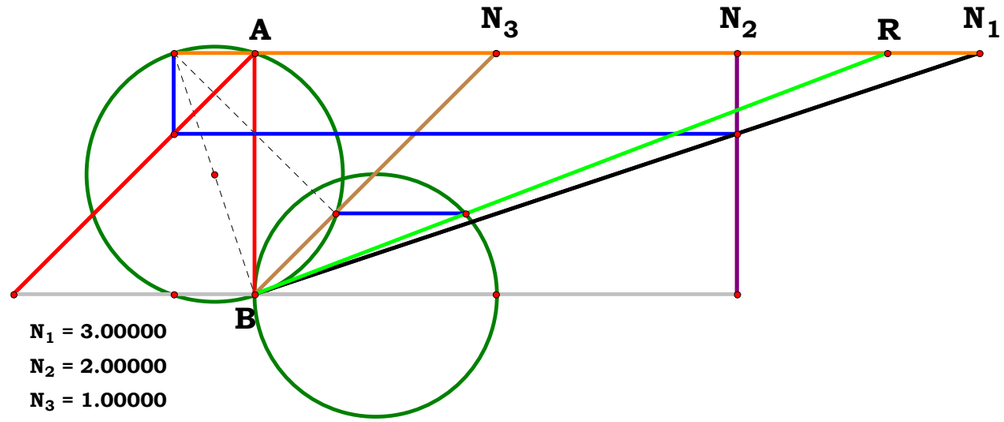
$CN_3 := AC + N_3$ $EN_3 := \frac{N_3 \cdot CN_3}{BN_3}$

$BE := BN_3 - EN_3$ $FG := \frac{BE}{BN_3}$

$BP := AB$ $OF := \frac{BP}{2}$

$GO := \sqrt{OF^2 - FG^2}$ $BG := OF + GO$

$R := \frac{BG}{FG}$ $R = 2.994357$



$N_1 = 3.00000$
$N_2 = 2.00000$
$N_3 = 1.00000$
$R = 2.61803$

$$\frac{N_1 \cdot (N_3^2+1) + \sqrt{(((3 \cdot N_1 + N_1 \cdot N_3^2) - 2 \cdot N_1 \cdot N_3) + 2 \cdot N_2 \cdot N_3) \cdot (((N_1 \cdot N_3^2 - N_1) + 2 \cdot N_1 \cdot N_3) - 2 \cdot N_2 \cdot N_3)}}{(2 \cdot ((N_1 - N_1 \cdot N_3) + N_2 \cdot N_3))} - R = 0.00000$$

Definitions.

$$R - \frac{\left[\sqrt{8 \cdot AC \cdot N_3 - 4 \cdot AC^2 \cdot N_3^2 + N_3^4 + 2 \cdot N_3^2 - 3} + \sqrt{\left(N_3^2 + 1\right)^2}\right] \cdot \left(N_3^2 + 1\right)}{2 \cdot \sqrt{\left(N_3^2 + 1\right)^2} \cdot (1 - AC \cdot N_3)} = 0$$

$$R - \frac{N_1 \cdot \left(N_3^2 + 1\right) + \sqrt{\left(3 \cdot N_1 + N_1 \cdot N_3^2 - 2 \cdot N_1 \cdot N_3 + 2 \cdot N_2 \cdot N_3\right) \cdot \left(N_1 \cdot N_3^2 - N_1 + 2 \cdot N_1 \cdot N_3 - 2 \cdot N_2 \cdot N_3\right)}}{2 \cdot \left(N_1 - N_1 \cdot N_3 + N_2 \cdot N_3\right)} = 0$$

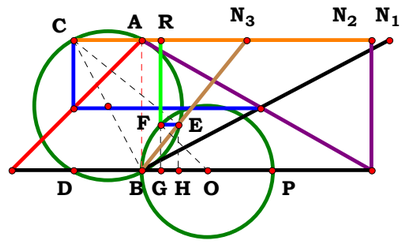
$$R - \frac{\sqrt{\left(B \cdot N_u^2 - B \cdot C^2 - 2 \cdot A \cdot C \cdot N_u + 2 \cdot B \cdot C \cdot N_u\right) \cdot \left(3 \cdot B \cdot C^2 + B \cdot N_u^2 + 2 \cdot A \cdot C \cdot N_u - 2 \cdot B \cdot C \cdot N_u\right)} + B \cdot \left(C^2 + N_u^2\right)}{2 \cdot C \cdot \left(B \cdot C + A \cdot N_u - B \cdot N_u\right)} = 0$$

$$R - \frac{\sqrt{\left(X \cdot Z^2 \cdot p - X \cdot p \cdot q^2 + 2 \cdot X \cdot Z \cdot p \cdot q - 2 \cdot Y \cdot Z \cdot o \cdot q\right) \cdot \left(X \cdot Z^2 \cdot p + 3 \cdot X \cdot p \cdot q^2 - 2 \cdot X \cdot Z \cdot p \cdot q + 2 \cdot Y \cdot Z \cdot o \cdot q\right)} + X \cdot p \cdot \left(Z^2 + q^2\right)}{2 \cdot q \cdot (Y \cdot Z \cdot o - X \cdot Z \cdot p + X \cdot p \cdot q)} = 0$$

$$N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0$$

$$N_1 - \frac{X}{o} = 0 \quad N_2 - \frac{Y}{p} = 0 \quad N_3 - \frac{Z}{q} = 0$$

4RST10BAB3R0



$N_1 = 1.89582$
$N_2 = 1.76022$
$N_3 = 0.80606$
$R = 0.14570$

Unit. $AB := 1$ Given. $N_1 := 1.89582$ $N_2 := 1.76022$ $N_3 := .80606$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

$AC := \frac{N_1}{N_1 + N_2}$ $BN_3 := \sqrt{AB^2 + N_3^2}$

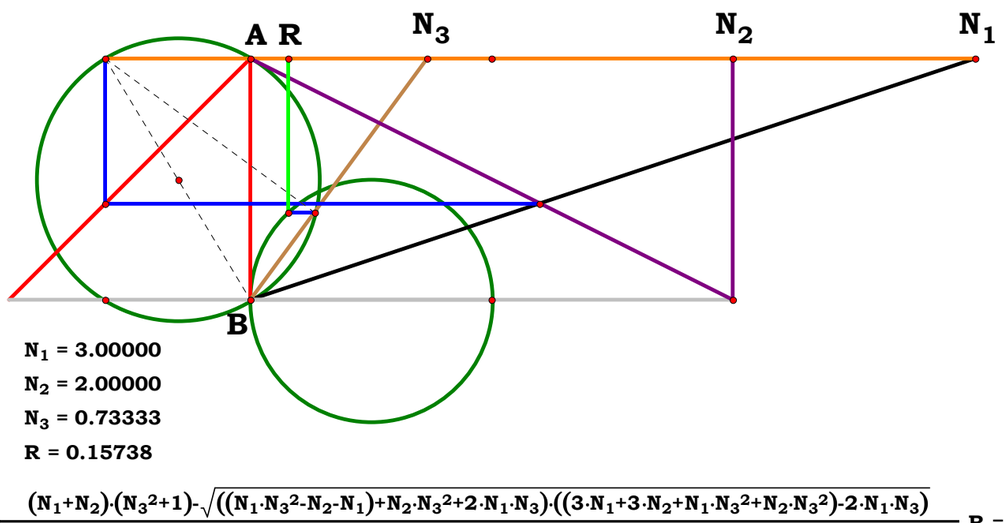
$CN_3 := AC + N_3$ $EN_3 := \frac{N_3 \cdot CN_3}{BN_3}$

$BE := BN_3 - EN_3$ $EH := \frac{BE}{BN_3}$

$FG := EH$ $BP := AB$

$FO := \frac{BP}{2}$ $GO := \sqrt{FO^2 - FG^2}$

$R := FO - GO$ $R = 0.145693$



$N_1 = 3.00000$
$N_2 = 2.00000$
$N_3 = 0.73333$
$R = 0.15738$

$$\frac{(N_1+N_2)\cdot(N_3^2+1)-\sqrt{((N_1\cdot N_3^2-N_2-N_1)+N_2\cdot N_3^2+2\cdot N_1\cdot N_3)\cdot((3\cdot N_1+3\cdot N_2+N_1\cdot N_3^2+N_2\cdot N_3^2)-2\cdot N_1\cdot N_3)}}{2\cdot(N_1+N_2)\cdot(N_3^2+1)} - R = 0.00000$$

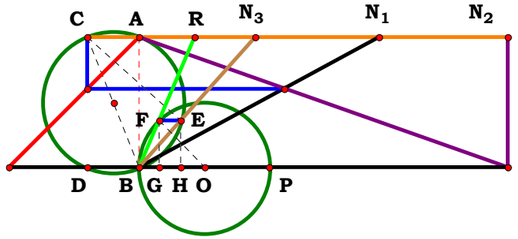
Definitions.

$$R - \frac{(N_1+N_2)\cdot(N_3^2+1)-\sqrt{(N_1\cdot N_3^2-N_2-N_1+N_2\cdot N_3^2+2\cdot N_1\cdot N_3)\cdot(3\cdot N_1+3\cdot N_2+N_1\cdot N_3^2+N_2\cdot N_3^2-2\cdot N_1\cdot N_3)}}{2\cdot(N_3^2+1)\cdot(N_1+N_2)} = 0 \qquad N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0$$

$$R - \frac{(C^2+N_u^2)\cdot(A+B)-\sqrt{(A\cdot N_u^2-B\cdot C^2-A\cdot C^2+B\cdot N_u^2+2\cdot B\cdot C\cdot N_u)\cdot(3\cdot A\cdot C^2+3\cdot B\cdot C^2+A\cdot N_u^2+B\cdot N_u^2-2\cdot B\cdot C\cdot N_u)}}{2\cdot(C^2+N_u^2)\cdot(A+B)} = 0 \qquad N_1 - \frac{X}{o} = 0 \quad N_2 - \frac{Y}{p} = 0 \quad N_3 - \frac{Z}{q} = 0$$

$$R - \frac{(N_1+N_2)\cdot(N_3^2+1)-\sqrt{(N_1\cdot N_3^2-N_2-N_1+N_2\cdot N_3^2+2\cdot N_1\cdot N_3)\cdot(3\cdot N_1+3\cdot N_2+N_1\cdot N_3^2+N_2\cdot N_3^2-2\cdot N_1\cdot N_3)}}{2\cdot(N_3^2+1)\cdot(N_1+N_2)} = 0$$

4RST10BAB3R1



$N_1 = 1.83771$
$N_2 = 2.82566$
$N_3 = 0.89323$
$R = 0.42577$

Unit. $AB := 1$ **Given.** $N_1 := 1.83771$ $N_2 := 2.82566$ $N_3 := .89323$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

$AC := \frac{N_1}{N_1 + N_2}$ $BN_3 := \sqrt{AB^2 + N_3^2}$

$CN_3 := AC + N_3$ $EN_3 := \frac{N_3 \cdot CN_3}{BN_3}$

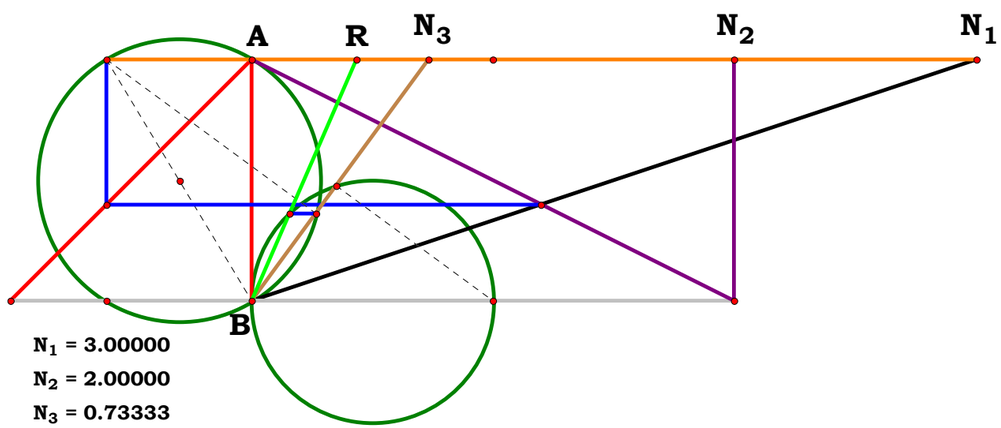
$BE := BN_3 - EN_3$ $EH := \frac{BE}{BN_3}$

$FG := EH$ $BP := AB$

$FO := \frac{BP}{2}$ $GO := \sqrt{FO^2 - FG^2}$

$BG := FO - GO$ $R := \frac{BG}{EH}$

$R = 0.425767$



$N_1 = 3.00000$
$N_2 = 2.00000$
$N_3 = 0.73333$
$R = 0.43218$

$\frac{\sqrt{((N_1 \cdot N_3^2 - N_2 - N_1) + N_2 \cdot N_3^2 + 2 \cdot N_1 \cdot N_3) \cdot ((3 \cdot N_1 + 3 \cdot N_2 + N_1 \cdot N_3^2 + N_2 \cdot N_3^2) - 2 \cdot N_1 \cdot N_3)} - (N_3^2 + 1) \cdot (N_1 + N_2)}{(2 \cdot (N_1 \cdot N_3 - N_2 - N_1))} - R = 0.00000$

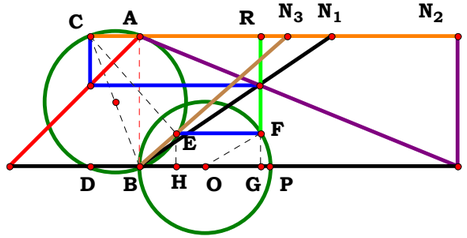
Definitions.

$$R - \frac{\sqrt{\left(N_1 \cdot N_3^2 - N_2 - N_1 + N_2 \cdot N_3^2 + 2 \cdot N_1 \cdot N_3\right) \cdot \left(3 \cdot N_1 + 3 \cdot N_2 + N_1 \cdot N_3^2 + N_2 \cdot N_3^2 - 2 \cdot N_1 \cdot N_3\right)} - \left(N_3^2 + 1\right) \cdot \left(N_1 + N_2\right)}{2 \cdot \left(N_1 \cdot N_3 - N_2 - N_1\right)} = 0 \qquad N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0$$

$$R - \frac{\left(C^2 + N_u^2\right) \cdot (A + B) - \sqrt{\left(A \cdot N_u^2 - B \cdot C^2 - A \cdot C^2 + B \cdot N_u^2 + 2 \cdot B \cdot C \cdot N_u\right) \cdot \left(3 \cdot A \cdot C^2 + 3 \cdot B \cdot C^2 + A \cdot N_u^2 + B \cdot N_u^2 - 2 \cdot B \cdot C \cdot N_u\right)}}{2 \cdot C \cdot \left(A \cdot C + B \cdot C - B \cdot N_u\right)} = 0 \qquad N_1 - \frac{X}{o} = 0 \quad N_2 - \frac{Y}{p} = 0 \quad N_3 - \frac{Z}{q} = 0$$

$$R - \frac{\sqrt{Z^4 \cdot (X \cdot p + Y \cdot o)^2 + 2 \cdot Z^2 \cdot q^2 \cdot \left(2 \cdot X \cdot Y \cdot o \cdot p - X^2 \cdot p^2 + Y^2 \cdot o^2\right) + 8 \cdot Z \cdot X \cdot p \cdot q^3 \cdot (X \cdot p + Y \cdot o) - 3 \cdot q^4 \cdot (X \cdot p + Y \cdot o)^2} - \left(Z^2 + q^2\right) \cdot (X \cdot p + Y \cdot o)}{2 \cdot q \cdot (X \cdot Z \cdot p - X \cdot p \cdot q - Y \cdot o \cdot q)} = 0$$

4RST10BAB3R2



$N_1 = 1.46965$
$N_2 = 2.43822$
$N_3 = 1.13537$
$R = 0.93282$

Unit. $AB := 1$ Given. $N_1 := 1.46965$ $N_2 := 2.43822$ $N_3 := 1.13537$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

$AC := \frac{N_1}{N_1 + N_2}$ $BN_3 := \sqrt{AB^2 + N_3^2}$

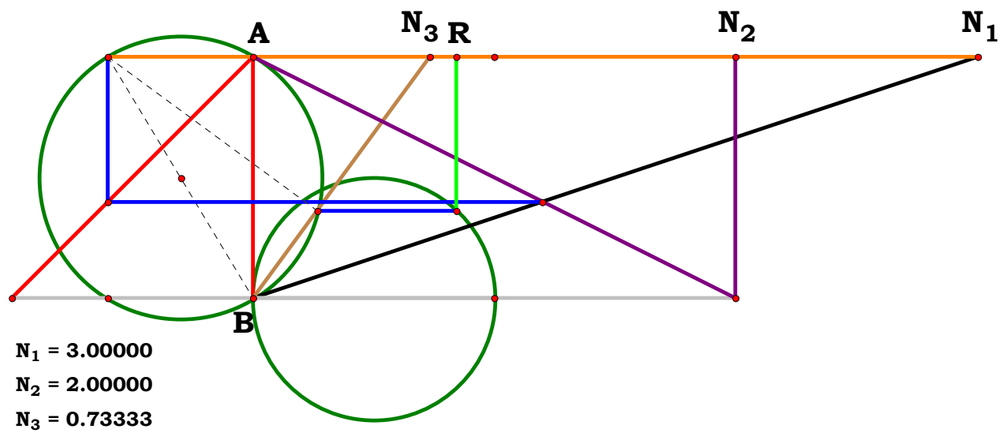
$CN_3 := AC + N_3$ $EN_3 := \frac{N_3 \cdot CN_3}{BN_3}$

$BE := BN_3 - EN_3$ $EH := \frac{BE}{BN_3}$

$FG := EH$ $BP := AB$

$FO := \frac{BP}{2}$ $GO := \sqrt{FO^2 - FG^2}$

$R := FO + GO$ $R = 0.932823$



$N_1 = 3.00000$
$N_2 = 2.00000$
$N_3 = 0.73333$
$R = 0.84262$

$$\frac{(N_1+N_2)\cdot(N_3^2+1)+\sqrt{((N_1\cdot N_3^2-N_2-N_1)+N_2\cdot N_3^2+2\cdot N_1\cdot N_3)\cdot((3\cdot N_1+3\cdot N_2+N_1\cdot N_3^2+N_2\cdot N_3^2)-2\cdot N_1\cdot N_3)}}{2\cdot(N_1+N_2)\cdot(N_3^2+1)} - R = 0.00000$$

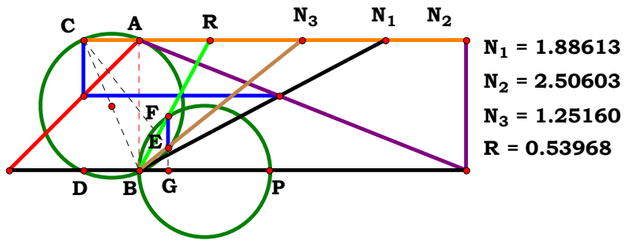
Definitions.

$$R - \frac{(N_1+N_2)\cdot(N_3^2+1)+\sqrt{(N_1\cdot N_3^2-N_2-N_1+N_2\cdot N_3^2+2\cdot N_1\cdot N_3)\cdot(3\cdot N_1+3\cdot N_2+N_1\cdot N_3^2+N_2\cdot N_3^2-2\cdot N_1\cdot N_3)}}{2\cdot(N_1+N_2)\cdot(N_3^2+1)} = 0 \qquad N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0$$

$$R - \frac{\sqrt{(A\cdot N_u^2-B\cdot C^2-A\cdot C^2+B\cdot N_u^2+2\cdot B\cdot C\cdot N_u)\cdot(3\cdot A\cdot C^2+3\cdot B\cdot C^2+A\cdot N_u^2+B\cdot N_u^2-2\cdot B\cdot C\cdot N_u)}+(C^2+N_u^2)\cdot(A+B)}{2\cdot(C^2+N_u^2)\cdot(A+B)} = 0 \qquad N_1 - \frac{X}{o} = 0 \quad N_2 - \frac{Y}{p} = 0 \quad N_3 - \frac{Z}{q} = 0$$

$$R - \frac{\sqrt{(X\cdot Z^2\cdot p+Y\cdot Z^2\cdot o-X\cdot p\cdot q^2-Y\cdot o\cdot q^2+2\cdot X\cdot Z\cdot p\cdot q)\cdot(X\cdot Z^2\cdot p+Y\cdot Z^2\cdot o+3\cdot X\cdot p\cdot q^2+3\cdot Y\cdot o\cdot q^2-2\cdot X\cdot Z\cdot p\cdot q)}+(Z^2+q^2)\cdot(X\cdot p+Y\cdot o)}{2\cdot(X\cdot p+Y\cdot o)\cdot(Z^2+q^2)} = 0$$

4RST10BAB3R3



$N_1 = 1.88613$
$N_2 = 2.50603$
$N_3 = 1.25160$
$R = 0.53968$

Unit. $AB := 1$ Given. $N_1 := 1.88613$ $N_2 := 2.50603$ $N_3 := 1.25160$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

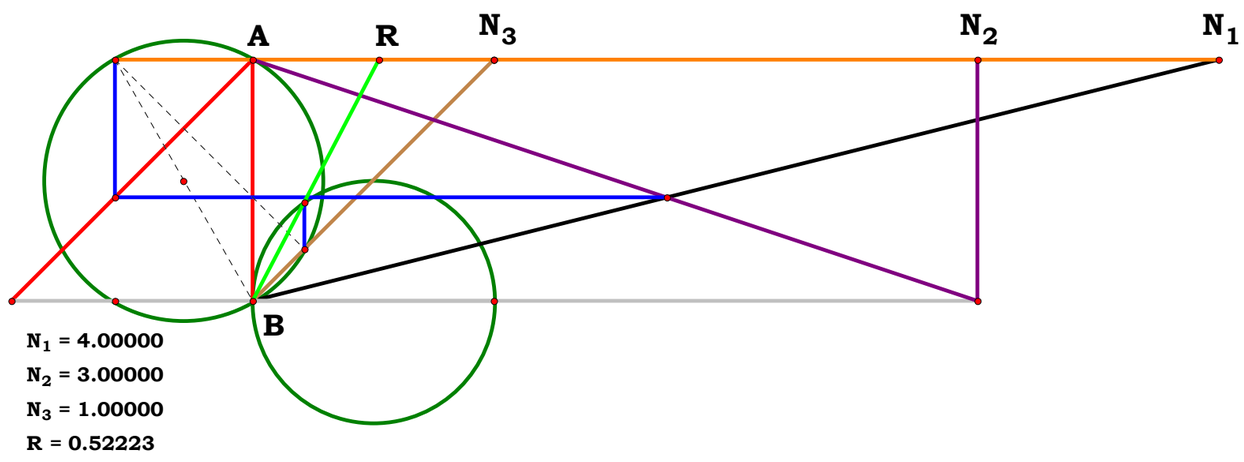
$AC := \frac{N_1}{N_1 + N_2}$ $BN_3 := \sqrt{AB^2 + N_3^2}$

$CN_3 := AC + N_3$ $EN_3 := \frac{N_3 \cdot CN_3}{BN_3}$

$BE := BN_3 - EN_3$ $BG := \frac{N_3 \cdot BE}{BN_3}$

$BP := AB$ $FG := \sqrt{BG \cdot (BP - BG)}$

$R := \frac{BG}{FG}$ $R = 0.539678$



$N_1 = 4.00000$
$N_2 = 3.00000$
$N_3 = 1.00000$
$R = 0.52223$

$$\frac{(N_3 \cdot ((N_1+N_2)-N_1 \cdot N_3))}{\sqrt{(N_3 \cdot ((N_1+N_2)-N_1 \cdot N_3)) \cdot ((N_1+N_2+2 \cdot N_1 \cdot N_3^2+N_2 \cdot N_3^2)-N_1 \cdot N_3-N_2 \cdot N_3)}} - R = 0.00000$$

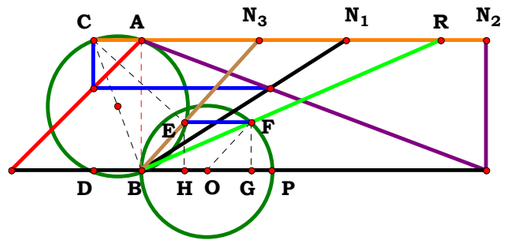
Definitions.

$$R - \frac{N_3 \cdot (N_1 + N_2 - N_1 \cdot N_3)}{\sqrt{N_3 \cdot (N_1 + N_2 - N_1 \cdot N_3) \cdot (N_1 + N_2 + 2 \cdot N_1 \cdot N_3^2 + N_2 \cdot N_3^2 - N_1 \cdot N_3 - N_2 \cdot N_3)}} = 0 \qquad N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0$$

$$R - \frac{N_u \cdot (A \cdot C + B \cdot C - B \cdot N_u)}{\sqrt{N_u \cdot (A \cdot C + B \cdot C - B \cdot N_u) \cdot (A \cdot C^2 + B \cdot C^2 + A \cdot N_u^2 + 2 \cdot B \cdot N_u^2 - A \cdot C \cdot N_u - B \cdot C \cdot N_u)}} = 0 \qquad N_1 - \frac{X}{o} = 0 \quad N_2 - \frac{Y}{p} = 0 \quad N_3 - \frac{Z}{q} = 0$$

$$R - \frac{Z \cdot (X \cdot p \cdot q - X \cdot Z \cdot p + Y \cdot o \cdot q)}{\sqrt{Z \cdot (X \cdot p \cdot q - X \cdot Z \cdot p + Y \cdot o \cdot q) \cdot [2 \cdot X \cdot Z^2 \cdot p + Y \cdot Z^2 \cdot o + X \cdot p \cdot q^2 + Y \cdot o \cdot q^2 - Z \cdot q \cdot (X \cdot p + Y \cdot o)]}} = 0$$

4RST10BAB3R4



$N_1 = 1.56650$
$N_2 = 2.64163$
$N_3 = 0.90291$
$R = 2.29939$

Unit. $AB := 1$ **Given.** $N_1 := 1.56650$ $N_2 := 2.64163$ $N_3 := .90291$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

$AC := \frac{N_1}{N_1 + N_2}$ $BN_3 := \sqrt{AB^2 + N_3^2}$

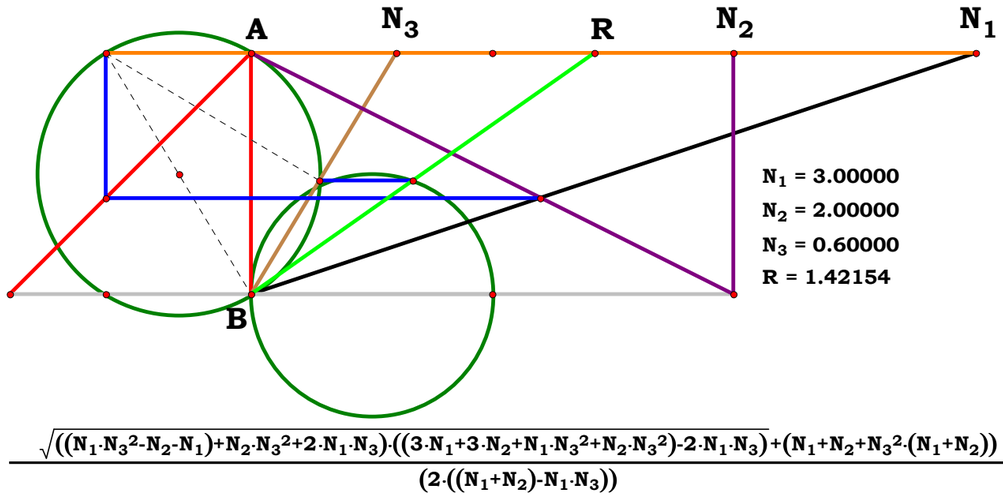
$CN_3 := AC + N_3$ $EN_3 := \frac{N_3 \cdot CN_3}{BN_3}$

$BE := BN_3 - EN_3$ $FG := \frac{BE}{BN_3}$

$BP := AB$ $OF := \frac{BP}{2}$

$GO := \sqrt{OF^2 - FG^2}$ $BG := OF + GO$

$R := \frac{BG}{FG}$ $R = 2.29937$



$N_1 = 3.00000$
$N_2 = 2.00000$
$N_3 = 0.60000$
$R = 1.42154$

$$\frac{\sqrt{((N_1 \cdot N_3^2 - N_2 - N_1) + N_2 \cdot N_3^2 + 2 \cdot N_1 \cdot N_3) \cdot ((3 \cdot N_1 + 3 \cdot N_2 + N_1 \cdot N_3^2 + N_2 \cdot N_3^2) - 2 \cdot N_1 \cdot N_3)} + (N_1 + N_2 + N_3^2 \cdot (N_1 + N_2))}{(2 \cdot ((N_1 + N_2) - N_1 \cdot N_3))} - R = 0.00000$$

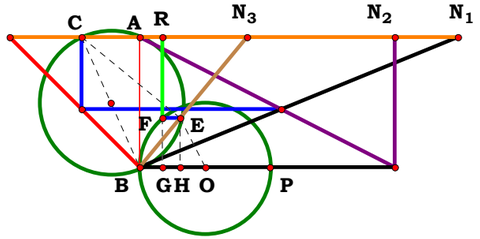
Definitions.

$$R - \frac{\sqrt{\left(N_1 \cdot N_3^2 - N_2 - N_1 + N_2 \cdot N_3^2 + 2 \cdot N_1 \cdot N_3\right) \cdot \left(3 \cdot N_1 + 3 \cdot N_2 + N_1 \cdot N_3^2 + N_2 \cdot N_3^2 - 2 \cdot N_1 \cdot N_3\right)} + N_1 + N_2 + N_3^2 \cdot \left(N_1 + N_2\right)}{2 \cdot \left(N_1 + N_2 - N_1 \cdot N_3\right)} = 0 \qquad N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0$$

$$R - \frac{\sqrt{\left(A \cdot N_u^2 - B \cdot C^2 - A \cdot C^2 + B \cdot N_u^2 + 2 \cdot B \cdot C \cdot N_u\right) \cdot \left(3 \cdot A \cdot C^2 + 3 \cdot B \cdot C^2 + A \cdot N_u^2 + B \cdot N_u^2 - 2 \cdot B \cdot C \cdot N_u\right)} + \left(C^2 + N_u^2\right) \cdot (A + B)}{2 \cdot C \cdot \left(A \cdot C + B \cdot C - B \cdot N_u\right)} = 0 \qquad N_1 - \frac{X}{o} = 0 \quad N_2 - \frac{Y}{p} = 0 \quad N_3 - \frac{Z}{q} = 0$$

$$R - \frac{\sqrt{\left(X \cdot Z^2 \cdot p + Y \cdot Z^2 \cdot o - X \cdot p \cdot q^2 - Y \cdot o \cdot q^2 + 2 \cdot X \cdot Z \cdot p \cdot q\right) \cdot \left(X \cdot Z^2 \cdot p + Y \cdot Z^2 \cdot o + 3 \cdot X \cdot p \cdot q^2 + 3 \cdot Y \cdot o \cdot q^2 - 2 \cdot X \cdot Z \cdot p \cdot q\right)} + \left(Z^2 + q^2\right) \cdot (X \cdot p + Y \cdot o)}{2 \cdot q \cdot (X \cdot p \cdot q - X \cdot Z \cdot p + Y \cdot o \cdot q)} = 0$$

4RST10BAB4R0



$N_1 = 2.43822$

$N_2 = 1.95394$

$N_3 = 0.82543$

$R = 0.17083$

Unit. $AB := 1$ Given. $N_1 := 2.43822$ $N_2 := 1.95394$ $N_3 := .82543$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

$AC := \frac{N_2}{N_1 + N_2}$ $BN_3 := \sqrt{AB^2 + N_3^2}$

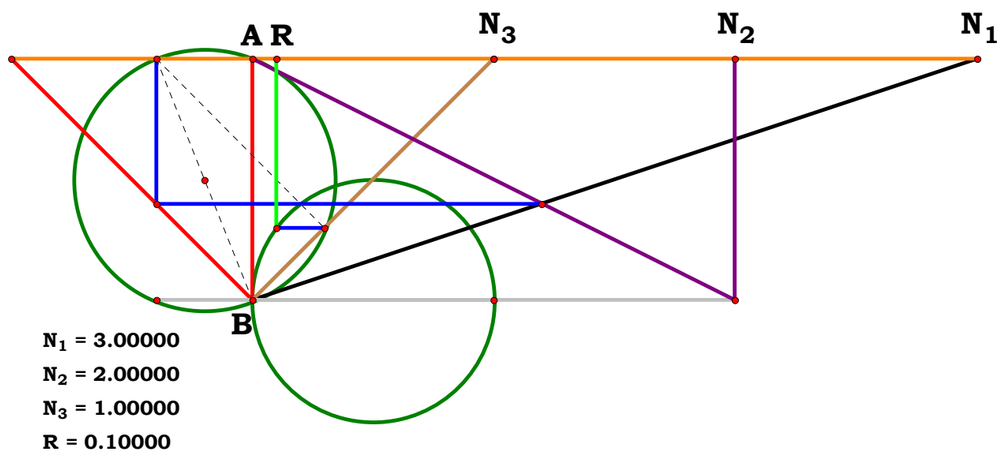
$CN_3 := AC + N_3$ $EN_3 := \frac{N_3 \cdot CN_3}{BN_3}$

$BE := BN_3 - EN_3$ $EH := \frac{BE}{BN_3}$

$FG := EH$ $BP := AB$

$FO := \frac{BP}{2}$ $GO := \sqrt{FO^2 - FG^2}$

$R := FO - GO$ $R = 0.170832$



$N_1 = 3.00000$

$N_2 = 2.00000$

$N_3 = 1.00000$

$R = 0.10000$

$$\frac{(N_1+N_2)\cdot(N_3^2+1)-\sqrt{((N_1\cdot N_3^2-N_2-N_1)+N_2\cdot N_3^2+2\cdot N_2\cdot N_3)\cdot((3\cdot N_1+3\cdot N_2+N_1\cdot N_3^2+N_2\cdot N_3^2)-2\cdot N_2\cdot N_3)}}{2\cdot(N_1+N_2)\cdot(N_3^2+1)} - R = 0.00000$$

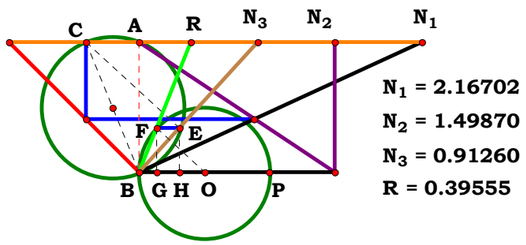
Definitions.

$$R - \frac{(N_1+N_2)\cdot(N_3^2+1)-\sqrt{(N_1\cdot N_3^2-N_2-N_1+N_2\cdot N_3^2+2\cdot N_2\cdot N_3)\cdot(3\cdot N_1+3\cdot N_2+N_1\cdot N_3^2+N_2\cdot N_3^2-2\cdot N_2\cdot N_3)}}{2\cdot(N_3^2+1)\cdot(N_1+N_2)} = 0 \qquad N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0$$

$$R - \frac{(C^2+N_u^2)\cdot(A+B)-\sqrt{(A\cdot N_u^2-B\cdot C^2-A\cdot C^2+B\cdot N_u^2+2\cdot A\cdot C\cdot N_u)\cdot(3\cdot A\cdot C^2+3\cdot B\cdot C^2+A\cdot N_u^2+B\cdot N_u^2-2\cdot A\cdot C\cdot N_u)}}{2\cdot(C^2+N_u^2)\cdot(A+B)} = 0 \qquad N_1 - \frac{X}{o} = 0 \quad N_2 - \frac{Y}{p} = 0 \quad N_3 - \frac{Z}{q} = 0$$

$$R - \frac{(Z^2+q^2)\cdot(X\cdot p+Y\cdot o)-\sqrt{(X\cdot Z^2\cdot p+Y\cdot Z^2\cdot o-X\cdot p\cdot q^2-Y\cdot o\cdot q^2+2\cdot Y\cdot Z\cdot o\cdot q)\cdot(X\cdot Z^2\cdot p+Y\cdot Z^2\cdot o+3\cdot X\cdot p\cdot q^2+3\cdot Y\cdot o\cdot q^2-2\cdot Y\cdot Z\cdot o\cdot q)}}{2\cdot(X\cdot p+Y\cdot o)\cdot(Z^2+q^2)} = 0$$

4RST10BAB4R1



$N_1 = 2.16702$
$N_2 = 1.49870$
$N_3 = 0.91260$
$R = 0.39555$

Unit. $AB := 1$ **Given.** $N_1 := 2.16702$ $N_2 := 1.49870$ $N_3 := .91260$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

$AC := \frac{N_2}{N_1 + N_2}$ $BN_3 := \sqrt{AB^2 + N_3^2}$

$CN_3 := AC + N_3$ $EN_3 := \frac{N_3 \cdot CN_3}{BN_3}$

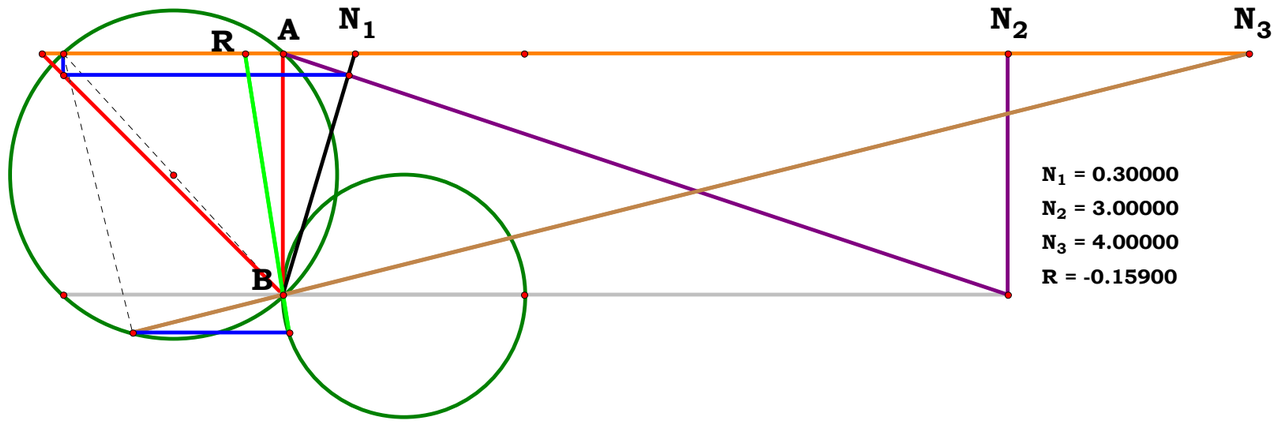
$BE := BN_3 - EN_3$ $EH := \frac{BE}{BN_3}$

$FG := EH$ $BP := AB$

$FO := \frac{BP}{2}$ $GO := \sqrt{FO^2 - FG^2}$

$BG := FO - GO$ $R := \frac{BG}{EH}$

$R = 0.395546$



$N_1 = 0.30000$
$N_2 = 3.00000$
$N_3 = 4.00000$
$R = -0.15900$

$$\frac{(N_1+N_2)\cdot(N_3^2+1)-\sqrt{((N_1\cdot N_3^2-N_2-N_1)+N_2\cdot N_3^2+2\cdot N_2\cdot N_3)\cdot((3\cdot N_1+3\cdot N_2+N_1\cdot N_3^2+N_2\cdot N_3^2)-2\cdot N_2\cdot N_3)}}{2\cdot((N_1+N_2)-N_2\cdot N_3)} - R = 0.00000$$

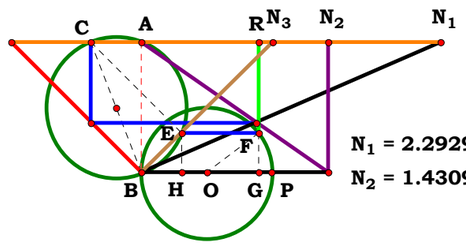
Definitions.

$$R - \frac{\left(N_3^2+1\right)\cdot\left(N_1+N_2\right)-\sqrt{\left(N_1\cdot N_3^2-N_2-N_1+N_2\cdot N_3^2+2\cdot N_2\cdot N_3\right)\cdot\left(3\cdot N_1+3\cdot N_2+N_1\cdot N_3^2+N_2\cdot N_3^2-2\cdot N_2\cdot N_3\right)}}{2\cdot\left(N_1+N_2-N_2\cdot N_3\right)} = 0 \qquad N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0$$

$$R - \frac{\left(C^2+N_u^2\right)\cdot(A+B)-\sqrt{\left(A\cdot N_u^2-B\cdot C^2-A\cdot C^2+B\cdot N_u^2+2\cdot A\cdot C\cdot N_u\right)\cdot\left(3\cdot A\cdot C^2+3\cdot B\cdot C^2+A\cdot N_u^2+B\cdot N_u^2-2\cdot A\cdot C\cdot N_u\right)}}{2\cdot C\cdot\left(A\cdot C+B\cdot C-A\cdot N_u\right)} = 0 \qquad N_1 - \frac{X}{o} = 0 \quad N_2 - \frac{Y}{p} = 0 \quad N_3 - \frac{Z}{q} = 0$$

$$R - \frac{\left(Z^2+q^2\right)\cdot(X\cdot p+Y\cdot o)-\sqrt{\left(X\cdot Z^2\cdot p+Y\cdot Z^2\cdot o-X\cdot p\cdot q^2-Y\cdot o\cdot q^2+2\cdot Y\cdot Z\cdot o\cdot q\right)\cdot\left(X\cdot Z^2\cdot p+Y\cdot Z^2\cdot o+3\cdot X\cdot p\cdot q^2+3\cdot Y\cdot o\cdot q^2-2\cdot Y\cdot Z\cdot o\cdot q\right)}}{2\cdot q\cdot(X\cdot p\cdot q-Y\cdot Z\cdot o+Y\cdot o\cdot q)} = 0$$

4RST10BAB4R2



$N_1 = 2.29294$ $N_3 = 1.00946$
$N_2 = 1.43090$ $R = 0.89760$

Unit. $AB := 1$ Given. $N_1 := 2.29294$ $N_2 := 1.43090$ $N_3 := 1.00946$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

$AC := \frac{N_2}{N_1 + N_2}$ $BN_3 := \sqrt{AB^2 + N_3^2}$

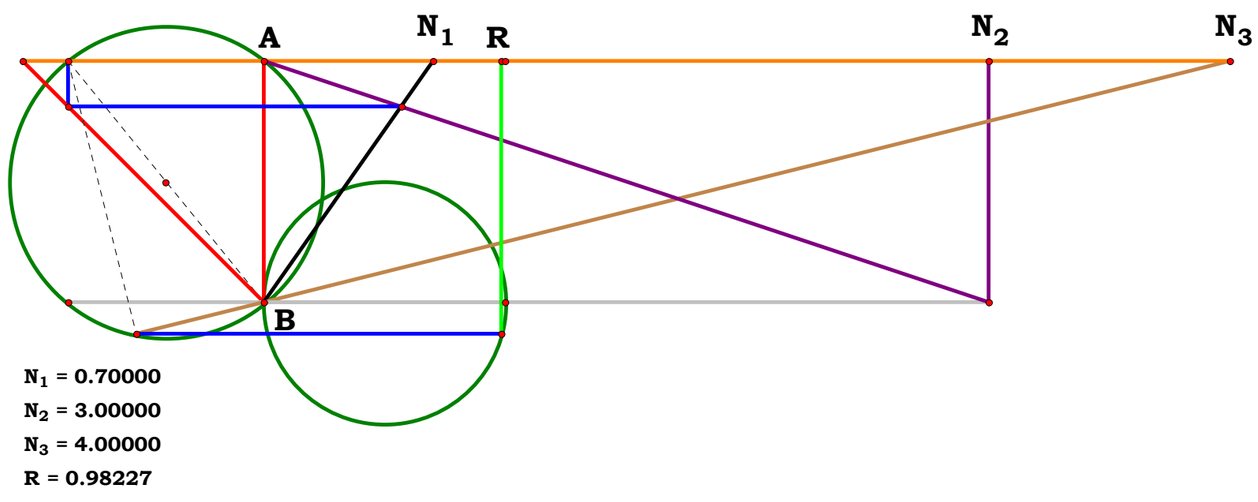
$CN_3 := AC + N_3$ $EN_3 := \frac{N_3 \cdot CN_3}{BN_3}$

$BE := BN_3 - EN_3$ $EH := \frac{BE}{BN_3}$

$FG := EH$ $BP := AB$

$FO := \frac{BP}{2}$ $GO := \sqrt{FO^2 - FG^2}$

$R := FO + GO$ $R = 0.8976$



$N_1 = 0.70000$
$N_2 = 3.00000$
$N_3 = 4.00000$
$R = 0.98227$

$$\frac{(N_1+N_2)\cdot(N_3^2+1)+\sqrt{((N_1\cdot N_3^2-N_2-N_1)+N_2\cdot N_3^2+2\cdot N_2\cdot N_3)\cdot((3\cdot N_1+3\cdot N_2+N_1\cdot N_3^2+N_2\cdot N_3^2)-2\cdot N_2\cdot N_3)}}{2\cdot(N_1+N_2)\cdot(N_3^2+1)} - R = 0.00000$$

Definitions.

$$R - \frac{(N_1+N_2)\cdot(N_3^2+1)+\sqrt{(N_1\cdot N_3^2-N_2-N_1+N_2\cdot N_3^2+2\cdot N_2\cdot N_3)\cdot(3\cdot N_1+3\cdot N_2+N_1\cdot N_3^2+N_2\cdot N_3^2-2\cdot N_2\cdot N_3)}}{2\cdot(N_3^2+1)\cdot(N_1+N_2)} = 0$$

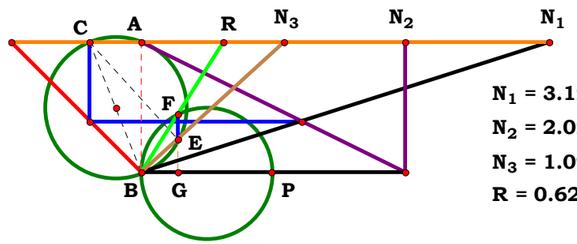
$$R - \frac{\sqrt{(A\cdot N_u^2-B\cdot C^2-A\cdot C^2+B\cdot N_u^2+2\cdot A\cdot C\cdot N_u)\cdot(3\cdot A\cdot C^2+3\cdot B\cdot C^2+A\cdot N_u^2+B\cdot N_u^2-2\cdot A\cdot C\cdot N_u)}+(C^2+N_u^2)\cdot(A+B)}{2\cdot(C^2+N_u^2)\cdot(A+B)} = 0$$

$$R - \frac{(N_1+N_2)\cdot(N_3^2+1)+\sqrt{(N_1\cdot N_3^2-N_2-N_1+N_2\cdot N_3^2+2\cdot N_2\cdot N_3)\cdot(3\cdot N_1+3\cdot N_2+N_1\cdot N_3^2+N_2\cdot N_3^2-2\cdot N_2\cdot N_3)}}{2\cdot(N_3^2+1)\cdot(N_1+N_2)} = 0$$

$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$

$N_1 - \frac{X}{o} = 0$ $N_2 - \frac{Y}{p} = 0$ $N_3 - \frac{Z}{q} = 0$

4RST10BAB4R3



$N_1 = 3.12592$
$N_2 = 2.02174$
$N_3 = 1.09663$
$R = 0.62894$

Unit. $AB := 1$ Given. $N_1 := 3.12592$ $N_2 := 2.02174$ $N_3 := 1.09663$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

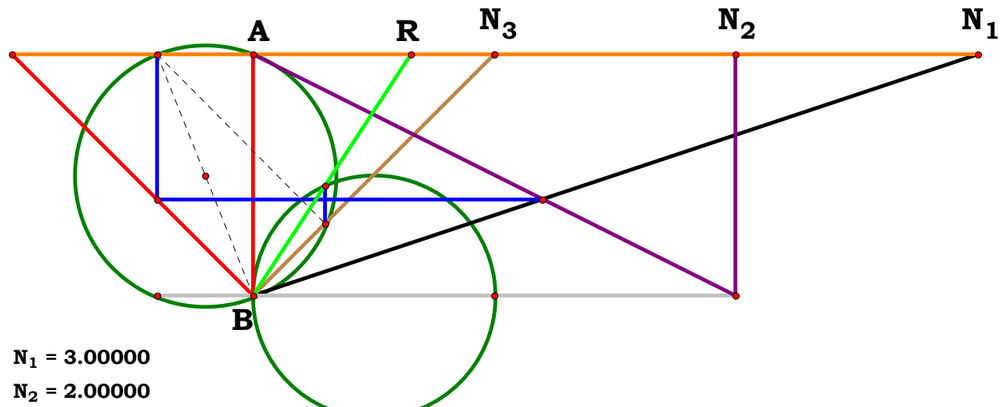
$AC := \frac{N_2}{N_1 + N_2}$ $BN_3 := \sqrt{AB^2 + N_3^2}$

$CN_3 := AC + N_3$ $EN_3 := \frac{N_3 \cdot CN_3}{BN_3}$

$BE := BN_3 - EN_3$ $BG := \frac{N_3 \cdot BE}{BN_3}$

$BP := AB$ $FG := \sqrt{BG \cdot (BP - BG)}$

$R := \frac{BG}{FG}$ $R = 0.628937$



$N_1 = 3.00000$
$N_2 = 2.00000$
$N_3 = 1.00000$
$R = 0.65465$

$$\frac{(N_3 \cdot ((N_1 + N_2) - N_2 \cdot N_3))}{\sqrt{(N_3 \cdot ((N_1 + N_2) - N_2 \cdot N_3)) \cdot ((N_1 + N_2 + N_1 \cdot N_3^2 + 2 \cdot N_2 \cdot N_3^2) - N_1 \cdot N_3 - N_2 \cdot N_3)}} - R = 0.00000$$

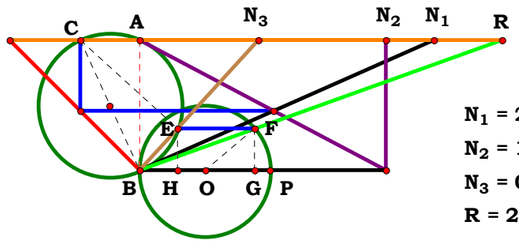
Definitions.

$$R - \frac{N_3 \cdot (N_1 + N_2 - N_2 \cdot N_3)}{\sqrt{N_3 \cdot (N_1 + N_2 - N_2 \cdot N_3) \cdot (N_1 + N_2 + N_1 \cdot N_3^2 + 2 \cdot N_2 \cdot N_3^2 - N_1 \cdot N_3 - N_2 \cdot N_3)}} = 0 \qquad N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0$$

$$R - \frac{N_u \cdot (A \cdot C + B \cdot C - A \cdot N_u)}{\sqrt{N_u \cdot (A \cdot C + B \cdot C - A \cdot N_u) \cdot (A \cdot C^2 + B \cdot C^2 + 2 \cdot A \cdot N_u^2 + B \cdot N_u^2 - A \cdot C \cdot N_u - B \cdot C \cdot N_u)}} = 0 \qquad N_1 - \frac{X}{o} = 0 \quad N_2 - \frac{Y}{p} = 0 \quad N_3 - \frac{Z}{q} = 0$$

$$R - \frac{Z \cdot (X \cdot p \cdot q - Y \cdot Z \cdot o + Y \cdot o \cdot q)}{\sqrt{Z \cdot (X \cdot p \cdot q - Y \cdot Z \cdot o + Y \cdot o \cdot q) \cdot (X \cdot Z^2 \cdot p + 2 \cdot Y \cdot Z^2 \cdot o + X \cdot p \cdot q^2 + Y \cdot o \cdot q^2 - X \cdot Z \cdot p \cdot q - Y \cdot Z \cdot o \cdot q)}} = 0$$

4RST10BAB4R4



$N_1 = 2.25419$
$N_2 = 1.88613$
$N_3 = 0.91260$
$R = 2.77689$

Unit. $AB := 1$ Given. $N_1 := 2.25419$ $N_2 := 1.88613$ $N_3 := .91260$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

$AC := \frac{N_2}{N_1 + N_2}$ $BN_3 := \sqrt{AB^2 + N_3^2}$

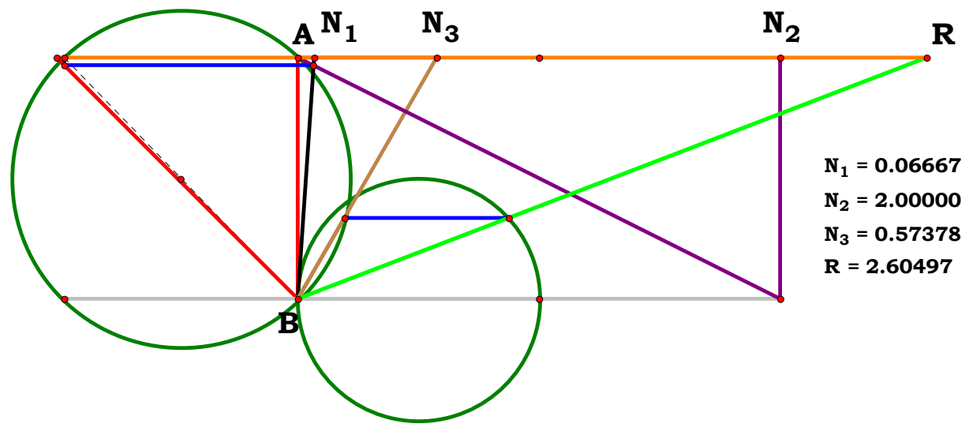
$CN_3 := AC + N_3$ $EN_3 := \frac{N_3 \cdot CN_3}{BN_3}$

$BE := BN_3 - EN_3$ $FG := \frac{BE}{BN_3}$

$BP := AB$ $OF := \frac{BP}{2}$ $GO := \sqrt{OF^2 - FG^2}$

$BG := OF + GO$ $R := \frac{BG}{FG}$

$R = 2.776892$



$N_1 = 0.06667$
$N_2 = 2.00000$
$N_3 = 0.57378$
$R = 2.60497$

$$\frac{(N_1+N_2)\cdot(N_3^2+1)+\sqrt{((N_1\cdot N_3^2-N_2-N_1)+N_2\cdot N_3^2+2\cdot N_2\cdot N_3)\cdot((3\cdot N_1+3\cdot N_2+N_1\cdot N_3^2+N_2\cdot N_3^2)-2\cdot N_2\cdot N_3)}}{(2\cdot((N_1+N_2)-N_2\cdot N_3))} - R = 0.00000$$

Definitions.

$$R - \frac{\sqrt{\left(N_1\cdot N_3^2 - N_2 - N_1 + N_2\cdot N_3^2 + 2\cdot N_2\cdot N_3\right)\cdot\left(3\cdot N_1 + 3\cdot N_2 + N_1\cdot N_3^2 + N_2\cdot N_3^2 - 2\cdot N_2\cdot N_3\right)} + \left(N_3^2 + 1\right)\cdot\left(N_1 + N_2\right)}{2\cdot\left(N_1 + N_2 - N_2\cdot N_3\right)} = 0$$

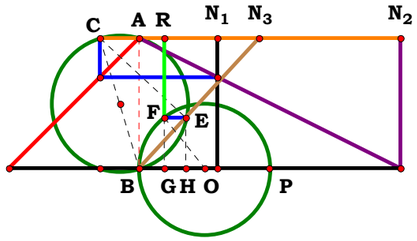
$$N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0$$

$$R - \frac{\sqrt{\left(A\cdot N_u^2 - B\cdot C^2 - A\cdot C^2 + B\cdot N_u^2 + 2\cdot A\cdot C\cdot N_u\right)\cdot\left(3\cdot A\cdot C^2 + 3\cdot B\cdot C^2 + A\cdot N_u^2 + B\cdot N_u^2 - 2\cdot A\cdot C\cdot N_u\right)} + \left(C^2 + N_u^2\right)\cdot(A + B)}{2\cdot C\cdot\left(A\cdot C + B\cdot C - A\cdot N_u\right)} = 0$$

$$N_1 - \frac{X}{o} = 0 \quad N_2 - \frac{Y}{p} = 0 \quad N_3 - \frac{Z}{q} = 0$$

$$R - \frac{\sqrt{\left(X\cdot Z^2\cdot p + Y\cdot Z^2\cdot o - X\cdot p\cdot q^2 - Y\cdot o\cdot q^2 + 2\cdot Y\cdot Z\cdot o\cdot q\right)\cdot\left(X\cdot Z^2\cdot p + Y\cdot Z^2\cdot o + 3\cdot X\cdot p\cdot q^2 + 3\cdot Y\cdot o\cdot q^2 - 2\cdot Y\cdot Z\cdot o\cdot q\right)} + \left(Z^2 + q^2\right)\cdot(X\cdot p + Y\cdot o)}{2\cdot q\cdot(X\cdot p\cdot q - Y\cdot Z\cdot o + Y\cdot o\cdot q)} = 0$$

4RST10BAB5R0



$N_1 = 0.59793$
$N_2 = 2.00236$
$N_3 = 0.92228$
$R = 0.18905$

Unit. $AB := 1$ Given. $N_1 := .59793$ $N_2 := 2.00236$ $N_3 := .92228$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

$AC := \frac{N_1}{N_2}$ $BN_3 := \sqrt{AB^2 + N_3^2}$

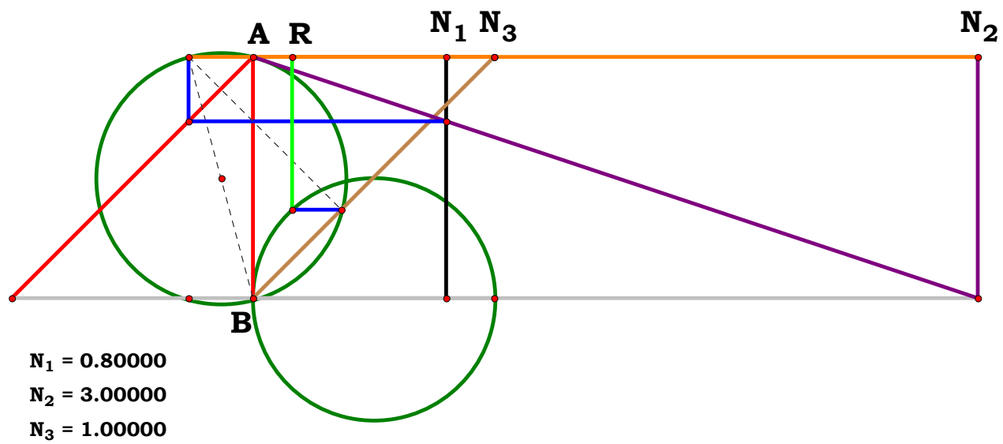
$CN_3 := AC + N_3$ $EN_3 := \frac{N_3 \cdot CN_3}{BN_3}$

$BE := BN_3 - EN_3$ $EH := \frac{BE}{BN_3}$

$FG := EH$ $BP := AB$

$FO := \frac{BP}{2}$ $GO := \sqrt{FO^2 - FG^2}$

$R := FO - GO$ $R = 0.189047$



$N_1 = 0.80000$
$N_2 = 3.00000$
$N_3 = 1.00000$
$R = 0.16007$

$\frac{N_2 \cdot (N_3^2+1) - \sqrt{((N_2 \cdot N_3^2 - 2 \cdot N_1 \cdot N_3) + 3 \cdot N_2) \cdot ((N_2 \cdot N_3^2 + 2 \cdot N_1 \cdot N_3) - N_2)}}{2 \cdot N_2 \cdot (N_3^2+1)} - R = 0.00000$

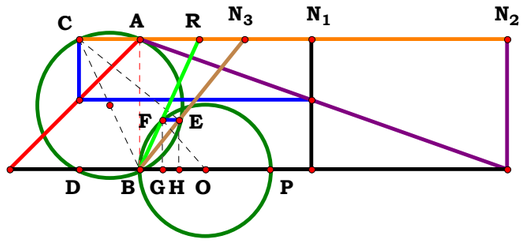
Definitions.

$R - \frac{N_2 \cdot (N_3^2 + 1) - \sqrt{(N_2 \cdot N_3^2 - 2 \cdot N_1 \cdot N_3 + 3 \cdot N_2) \cdot (N_2 \cdot N_3^2 + 2 \cdot N_1 \cdot N_3 - N_2)}}{2 \cdot N_2 \cdot (N_3^2 + 1)} = 0$ $N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$

$R - \frac{A \cdot (C^2 + N_u^2) - \sqrt{(2 \cdot B \cdot C \cdot N_u - 3 \cdot A \cdot C^2 - A \cdot N_u^2) \cdot (A \cdot C^2 - 2 \cdot B \cdot C \cdot N_u - A \cdot N_u^2)}}{2 \cdot (C^2 + N_u^2) \cdot A} = 0$ $N_1 - \frac{X}{o} = 0$ $N_2 - \frac{Y}{p} = 0$ $N_3 - \frac{Z}{q} = 0$

$R - \frac{Y \cdot o \cdot (Z^2 + q^2) - \sqrt{(Y \cdot o \cdot Z^2 + 2 \cdot X \cdot p \cdot Z \cdot q - Y \cdot o \cdot q^2) \cdot (Y \cdot o \cdot Z^2 - 2 \cdot X \cdot p \cdot Z \cdot q + 3 \cdot Y \cdot o \cdot q^2)}}{2 \cdot Y \cdot (Z^2 + q^2) \cdot o} = 0$

4RST10BAB5R1



$N_1 = 1.31467$
$N_2 = 2.81597$
$N_3 = 0.80606$
$R = 0.45701$

Unit. $AB := 1$ **Given.** $N_1 := 1.31467$ $N_2 := 2.81597$ $N_3 := .80606$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

$AC := \frac{N_1}{N_2}$ $BN_3 := \sqrt{AB^2 + N_3^2}$

$CN_3 := AC + N_3$ $EN_3 := \frac{N_3 \cdot CN_3}{BN_3}$

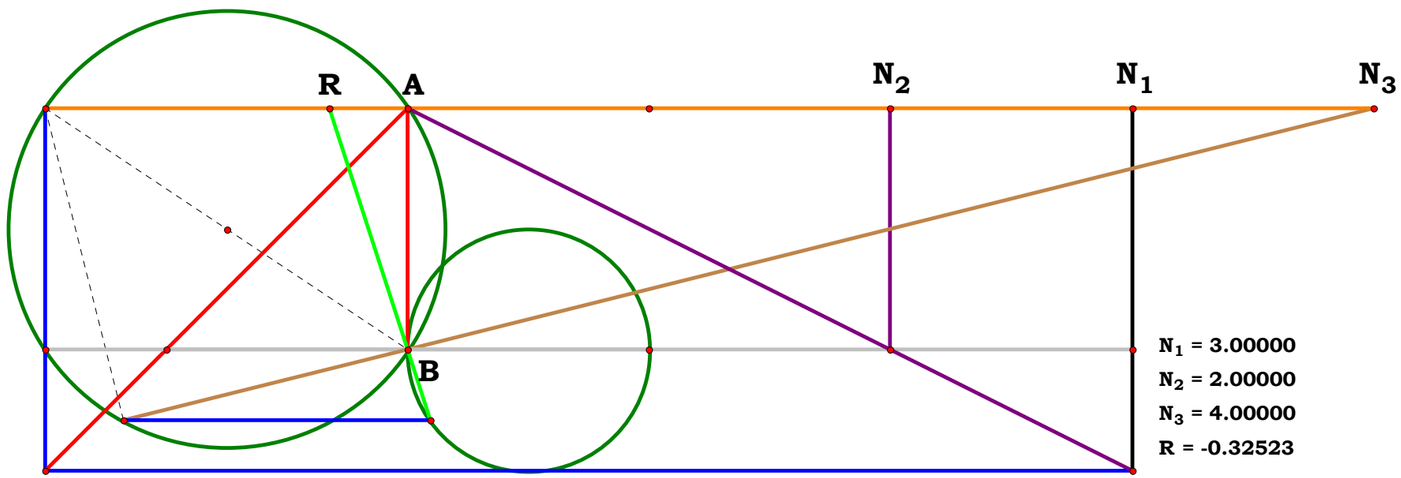
$BE := BN_3 - EN_3$ $EH := \frac{BE}{BN_3}$

$FG := EH$ $BP := AB$

$FO := \frac{BP}{2}$ $GO := \sqrt{FO^2 - FG^2}$

$BG := FO - GO$ $R := \frac{BG}{EH}$

$R = 0.457008$



$N_1 = 3.00000$
$N_2 = 2.00000$
$N_3 = 4.00000$
$R = -0.32523$

$$\frac{\sqrt{((N_2 \cdot N_3^2 - 2 \cdot N_1 \cdot N_3) + 3 \cdot N_2) \cdot ((N_2 \cdot N_3^2 + 2 \cdot N_1 \cdot N_3) - N_2)} - N_2 \cdot (N_3^2 + 1)}{(2 \cdot (N_1 \cdot N_3 - N_2))} - R = 0.00000$$

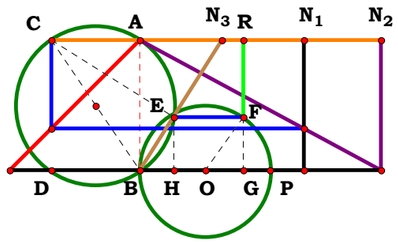
Definitions.

$$R - \frac{\sqrt{\left(N_2 \cdot N_3^2 - 2 \cdot N_1 \cdot N_3 + 3 \cdot N_2\right) \cdot \left(N_2 \cdot N_3^2 + 2 \cdot N_1 \cdot N_3 - N_2\right)} - N_2 \cdot \left(N_3^2 + 1\right)}{2 \cdot \left(N_1 \cdot N_3 - N_2\right)} = 0 \qquad N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0$$

$$R - \frac{A \cdot \left(C^2 + N_u^2\right) - \sqrt{\left(2 \cdot B \cdot C \cdot N_u - 3 \cdot A \cdot C^2 - A \cdot N_u^2\right) \cdot \left(A \cdot C^2 - 2 \cdot B \cdot C \cdot N_u - A \cdot N_u^2\right)}}{2 \cdot C \cdot \left(A \cdot C - B \cdot N_u\right)} = 0 \qquad N_1 - \frac{X}{o} = 0 \quad N_2 - \frac{Y}{p} = 0 \quad N_3 - \frac{Z}{q} = 0$$

$$R - \frac{\sqrt{\left(Y \cdot o \cdot Z^2 + 2 \cdot X \cdot p \cdot Z \cdot q - Y \cdot o \cdot q^2\right) \cdot \left(Y \cdot o \cdot Z^2 - 2 \cdot X \cdot p \cdot Z \cdot q + 3 \cdot Y \cdot o \cdot q^2\right)} - Y \cdot o \cdot \left(Z^2 + q^2\right)}{2 \cdot q \cdot (X \cdot Z \cdot p - Y \cdot o \cdot q)} = 0$$

4RST10BAB5R2



$N_1 = 1.25656$

$N_2 = 1.84739$

$N_3 = 0.63171$

$R = 0.78952$

Unit. $AB := 1$ **Given.** $N_1 := 1.25656$ $N_2 := 1.84739$ $N_3 := .63171$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

$AC := \frac{N_1}{N_2}$ $BN_3 := \sqrt{AB^2 + N_3^2}$

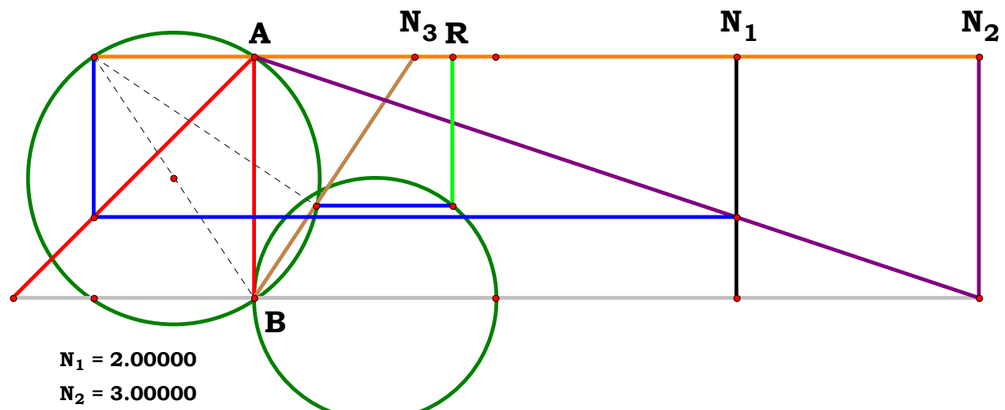
$CN_3 := AC + N_3$ $EN_3 := \frac{N_3 \cdot CN_3}{BN_3}$

$BE := BN_3 - EN_3$ $EH := \frac{BE}{BN_3}$

$FG := EH$ $BP := AB$

$FO := \frac{BP}{2}$ $GO := \sqrt{FO^2 - FG^2}$

$R := FO + GO$ $R = 0.789522$



$N_1 = 2.00000$

$N_2 = 3.00000$

$N_3 = 0.66667$

$R = 0.81949$

$\frac{N_2 \cdot (N_3^2+1) + \sqrt{((N_2 \cdot N_3^2 + 2 \cdot N_1 \cdot N_3) - N_2) \cdot ((N_2 \cdot N_3^2 - 2 \cdot N_1 \cdot N_3) + 3 \cdot N_2)}}{2 \cdot N_2 \cdot (N_3^2+1)} - R = 0.00000$

Definitions.

$$R - \frac{N_2 \cdot \left(N_3^2 + 1\right) + \sqrt{\left(N_2 \cdot N_3^2 + 2 \cdot N_1 \cdot N_3 - N_2\right) \cdot \left(N_2 \cdot N_3^2 - 2 \cdot N_1 \cdot N_3 + 3 \cdot N_2\right)}}{2 \cdot N_2 \cdot \left(N_3^2 + 1\right)} = 0$$

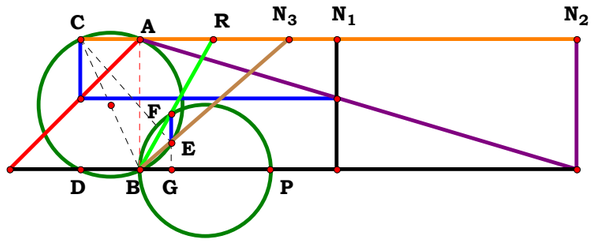
$$N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0$$

$$R - \frac{\sqrt{\left(2 \cdot B \cdot C \cdot N_u - A \cdot C^2 + A \cdot N_u^2\right) \cdot \left(3 \cdot A \cdot C^2 - 2 \cdot B \cdot C \cdot N_u + A \cdot N_u^2\right)} + A \cdot \left(C^2 + N_u^2\right)}{2 \cdot \left(C^2 + N_u^2\right) \cdot A} = 0$$

$$N_1 - \frac{X}{o} = 0 \quad N_2 - \frac{Y}{p} = 0 \quad N_3 - \frac{Z}{q} = 0$$

$$R - \frac{\sqrt{\left(Y \cdot o \cdot Z^2 + 2 \cdot X \cdot p \cdot Z \cdot q - Y \cdot o \cdot q^2\right) \cdot \left(Y \cdot o \cdot Z^2 - 2 \cdot X \cdot p \cdot Z \cdot q + 3 \cdot Y \cdot o \cdot q^2\right)} + Y \cdot o \cdot \left(Z^2 + q^2\right)}{2 \cdot Y \cdot \left(Z^2 + q^2\right) \cdot o} = 0$$

4RST10BAB5R3



$N_1 = 1.50839$
$N_2 = 3.34869$
$N_3 = 1.14506$
$R = 0.56180$

Unit. $AB := 1$ Given. $N_1 := 1.50839$ $N_2 := 3.34869$ $N_3 := 1.14506$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

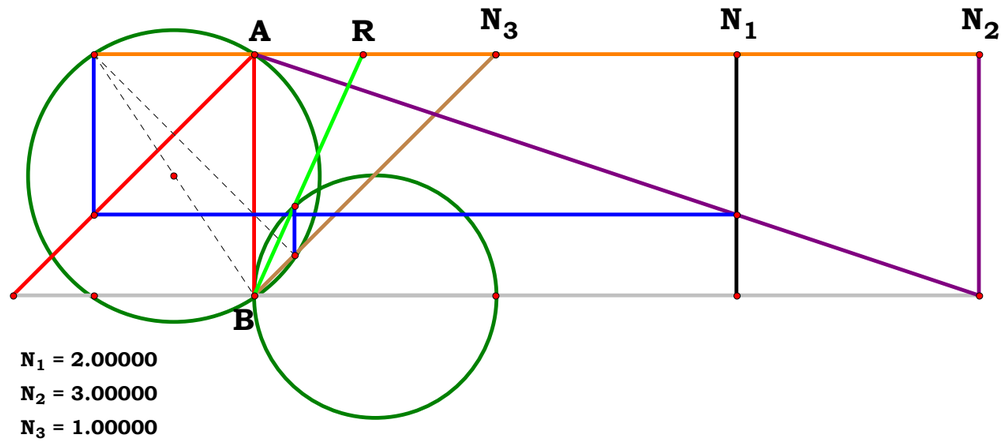
$AC := \frac{N_1}{N_2}$ $BN_3 := \sqrt{AB^2 + N_3^2}$

$CN_3 := AC + N_3$ $EN_3 := \frac{N_3 \cdot CN_3}{BN_3}$

$BE := BN_3 - EN_3$ $BG := \frac{N_3 \cdot BE}{BN_3}$

$BP := AB$ $FG := \sqrt{BG \cdot (BP - BG)}$

$R := \frac{BG}{FG}$ $R = 0.561804$



$N_1 = 2.00000$
$N_2 = 3.00000$
$N_3 = 1.00000$
$R = 0.44721$

$\frac{(N_3 \cdot (N_2 - N_1 \cdot N_3))}{\sqrt{(N_3 \cdot (N_2 - N_1 \cdot N_3)) \cdot ((N_2 + N_1 \cdot N_3^2 + N_2 \cdot N_3^2) - N_2 \cdot N_3)}} - R = 0.00000$

Definitions.

$R - \frac{N_3 \cdot (N_2 - N_1 \cdot N_3)}{\sqrt{N_3 \cdot (N_2 - N_1 \cdot N_3) \cdot (N_2 + N_1 \cdot N_3^2 + N_2 \cdot N_3^2 - N_2 \cdot N_3)}} = 0$

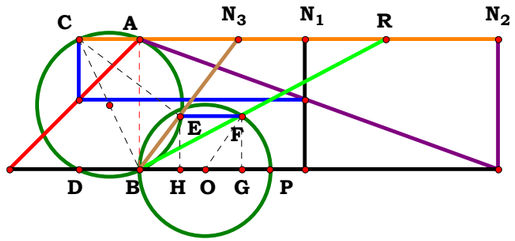
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$

$R - \frac{N_u \cdot (A \cdot C - B \cdot N_u)}{\sqrt{N_u \cdot (A \cdot C - B \cdot N_u) \cdot (A \cdot C^2 + A \cdot N_u^2 + B \cdot N_u^2 - A \cdot C \cdot N_u)}} = 0$

$N_1 - \frac{X}{o} = 0$ $N_2 - \frac{Y}{p} = 0$ $N_3 - \frac{Z}{q} = 0$

$R - \frac{Z \cdot (Y \cdot o \cdot q - X \cdot Z \cdot p)}{\sqrt{Z \cdot (Y \cdot o \cdot q - X \cdot Z \cdot p) \cdot (X \cdot Z^2 \cdot p + Y \cdot Z^2 \cdot o + Y \cdot o \cdot q^2 - Y \cdot Z \cdot o \cdot q)}} = 0$

4RST10BAB5R4



$N_1 = 1.26624$
$N_2 = 2.74817$
$N_3 = 0.75763$
$R = 1.88865$

Unit. $AB := 1$ **Given.** $N_1 := 1.26624$ $N_2 := 2.74817$ $N_3 := .75763$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

$AC := \frac{N_1}{N_2}$ $BN_3 := \sqrt{AB^2 + {N_3}^2}$

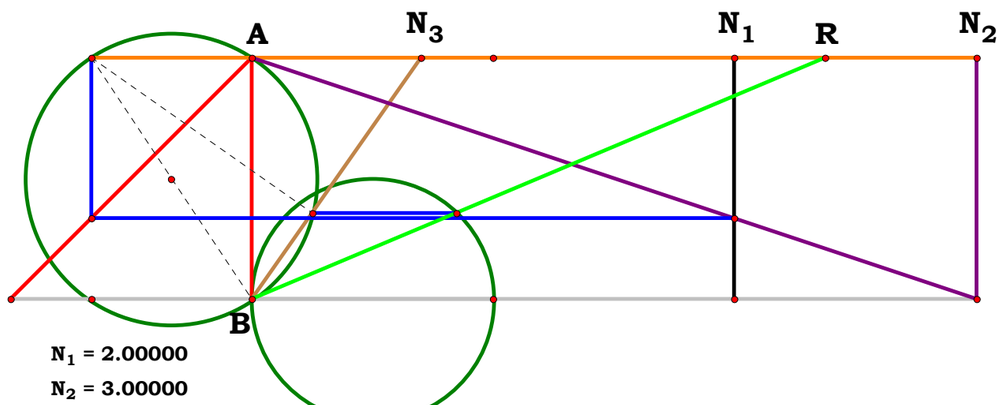
$CN_3 := AC + N_3$ $EN_3 := \frac{N_3 \cdot CN_3}{BN_3}$

$BE := BN_3 - EN_3$ $FG := \frac{BE}{BN_3}$

$BP := AB$ $OF := \frac{BP}{2}$

$GO := \sqrt{OF^2 - FG^2}$ $BG := OF + GO$

$R := \frac{BG}{FG}$ $R = 1.888658$



$N_1 = 2.00000$
$N_2 = 3.00000$
$N_3 = 0.70000$
$R = 2.37220$

$\frac{N_2 \cdot (N_3^2+1) + \sqrt{((N_2 \cdot N_3^2 + 2 \cdot N_1 \cdot N_3) - N_2) \cdot ((N_2 \cdot N_3^2 - 2 \cdot N_1 \cdot N_3) + 3 \cdot N_2)}}{(2 \cdot (N_2 - N_1 \cdot N_3))} - R = 0.00000$

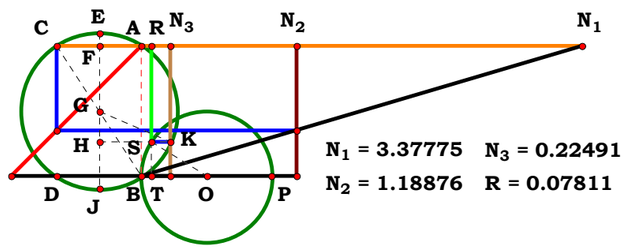
Definitions.

$R - \frac{N_2 \cdot \left({N_3}^2 + 1\right) + \sqrt{\left(N_2 \cdot {N_3}^2 + 2 \cdot N_1 \cdot N_3 - N_2\right) \cdot \left(N_2 \cdot {N_3}^2 - 2 \cdot N_1 \cdot N_3 + 3 \cdot N_2\right)}}{2 \cdot \left(N_2 - N_1 \cdot N_3\right)} = 0$ $N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$

$R - \frac{\sqrt{\left(2 \cdot B \cdot C \cdot N_u - A \cdot C^2 + A \cdot {N_u}^2\right) \cdot \left(3 \cdot A \cdot C^2 - 2 \cdot B \cdot C \cdot N_u + A \cdot {N_u}^2\right)} + A \cdot \left(C^2 + {N_u}^2\right)}{2 \cdot C \cdot \left(A \cdot C - B \cdot N_u\right)} = 0$ $N_1 - \frac{X}{o} = 0$ $N_2 - \frac{Y}{p} = 0$ $N_3 - \frac{Z}{q} = 0$

$R - \frac{\sqrt{\left(Y \cdot o \cdot Z^2 + 2 \cdot X \cdot p \cdot Z \cdot q - Y \cdot o \cdot q^2\right) \cdot \left(Y \cdot o \cdot Z^2 - 2 \cdot X \cdot p \cdot Z \cdot q + 3 \cdot Y \cdot o \cdot q^2\right)} + Y \cdot o \cdot \left(Z^2 + q^2\right)}{2 \cdot q \cdot (Y \cdot o \cdot q - X \cdot Z \cdot p)} = 0$

4RST10CAB1R0



Unit. $AB := 1$ Given. $N_1 := 3.37775$ $N_2 := 1.18876$ $N_3 := .22491$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

$AC := \frac{N_1 - N_2}{N_1}$ $EJ := \sqrt{AB^2 + AC^2}$

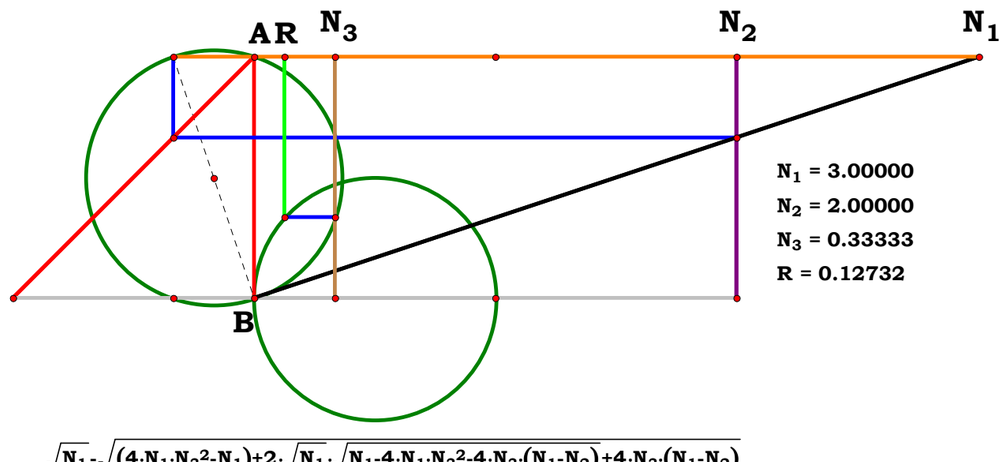
$AF := \frac{AC}{2}$ $EF := \frac{EJ - AB}{2}$ $GK := \frac{EJ}{2}$

$HK := AF + N_3$ $GH := \sqrt{GK^2 - HK^2}$

$ST := GK - (GH + EF)$ $BP := AB$ $BO := \frac{BP}{2}$

$OT := \sqrt{BO^2 - ST^2}$ $R := BO - OT$

$R = 0.078116$



$$\frac{\sqrt{N_1}\cdot\sqrt{(4\cdot N_1\cdot N_3^2-N_1)}+2\cdot\sqrt{N_1}\cdot\sqrt{N_1-4\cdot N_1\cdot N_3^2-4\cdot N_3\cdot(N_1-N_2)}+4\cdot N_3\cdot(N_1-N_2)}{2\cdot\sqrt{N_1}} - R = 0.00000$$

Definitions.

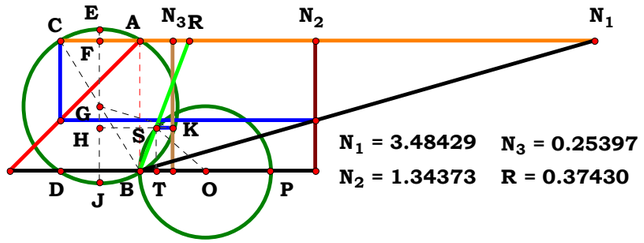
$$R - \frac{1 - \sqrt{4\cdot N_3^2 + 4\cdot AC\cdot N_3 + 2\cdot\sqrt{-4\cdot N_3^2 - 4\cdot AC\cdot N_3 + 1} - 1}}{2} = 0$$

$$R - \frac{\sqrt{N_1} - \sqrt{4\cdot N_1\cdot N_3^2 - N_1 + 2\cdot\sqrt{N_1}\cdot\sqrt{N_1 - 4\cdot N_1\cdot N_3^2 - 4\cdot N_3\cdot(N_1 - N_2)} + 4\cdot N_3\cdot(N_1 - N_2)}}{2\cdot\sqrt{N_1}} = 0 \qquad N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0$$

$$R - \frac{C\cdot\sqrt{N_u}\cdot(A\cdot B)^{\frac{3}{4}} - \sqrt{A}\cdot\sqrt{\sqrt{N_u}\cdot\left[2\cdot\sqrt{A}\cdot B\cdot C\cdot\sqrt{N_u\cdot\left[B\cdot C^2 - 4\cdot B\cdot N_u^2 + 4\cdot C\cdot N_u\cdot(A - B)\right]} - \sqrt{A\cdot B}\cdot\sqrt{N_u}\cdot\left[B\cdot\left(C^2 - 4\cdot N_u^2\right) + 4\cdot C\cdot N_u\cdot(A - B)\right]\right]}}{2\cdot\sqrt{N_u}\cdot(A\cdot B)^{\frac{3}{4}}\cdot C} = 0 \qquad N_1 - \frac{X}{o} = 0 \quad N_2 - \frac{Y}{p} = 0 \quad N_3 - \frac{Z}{q} = 0$$

$$R - \frac{\sqrt{X}\cdot q\cdot(o\cdot p)^{\frac{3}{4}} - \sqrt{o}\cdot\sqrt{\sqrt{o\cdot p}\cdot\left(4\cdot X\cdot Z^2\cdot p - X\cdot p\cdot q^2 + 4\cdot X\cdot Z\cdot p\cdot q - 4\cdot Y\cdot Z\cdot o\cdot q\right) + 2\cdot\sqrt{X}\cdot\sqrt{o}\cdot p\cdot q\cdot\sqrt{X\cdot p\cdot q^2 - 4\cdot Z\cdot(X\cdot Z\cdot p + X\cdot p\cdot q - Y\cdot o\cdot q)}}}{2\cdot\sqrt{X}\cdot(o\cdot p)^{\frac{3}{4}}\cdot q} = 0$$

4RST10CAB1R1



Unit. $AB := 1$ Given. $N_1 := 3.48429$ $N_2 := 1.34373$ $N_3 := .25397$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

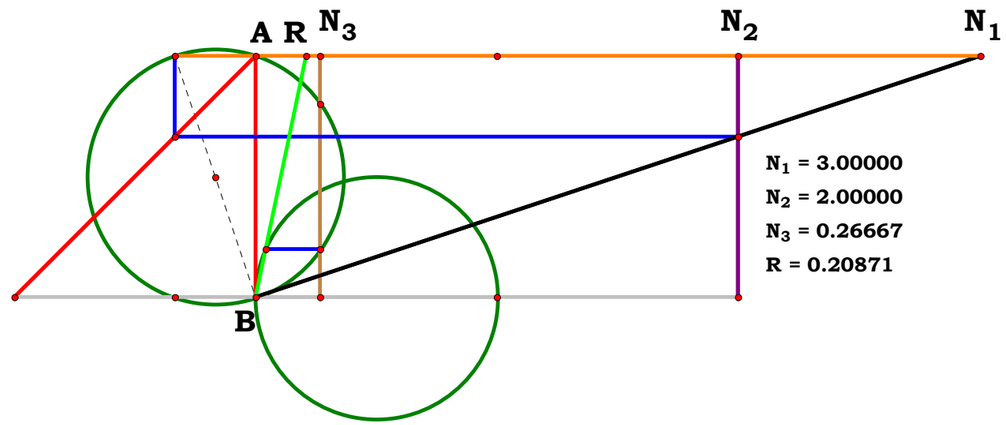
$AC := \frac{N_1 - N_2}{N_1}$ $EJ := \sqrt{AB^2 + AC^2}$ $AF := \frac{AC}{2}$

$EF := \frac{EJ - AB}{2}$ $GK := \frac{EJ}{2}$ $HK := AF + N_3$

$GH := \sqrt{GK^2 - HK^2}$ $ST := GK - (GH + EF)$

$BP := AB$ $BO := \frac{BP}{2}$ $OT := \sqrt{BO^2 - ST^2}$

$BT := BO - OT$ $R := \frac{BT}{ST}$ $R = 0.374325$



Definitions.

$$R - \frac{\sqrt{4 \cdot N_3 \cdot (AC + N_3) + 2 \cdot \sqrt{1 - 4 \cdot N_3 \cdot (AC + N_3)} - 1} - 1}{\sqrt{1 - 4 \cdot N_3 \cdot (AC + N_3)} - 1} = 0$$

$$\frac{\sqrt{N_1} - \sqrt{((4 \cdot N_3 \cdot ((N_1 - N_2) + N_1 \cdot N_3)) - N_1) + 2 \cdot \sqrt{N_1} \cdot \sqrt{N_1 - (4 \cdot N_3 \cdot ((N_1 - N_2) + N_1 \cdot N_3))}}}{\sqrt{N_1} - \sqrt{N_1 - (4 \cdot N_3 \cdot ((N_1 - N_2) + N_1 \cdot N_3))}} - R = 0.00000$$

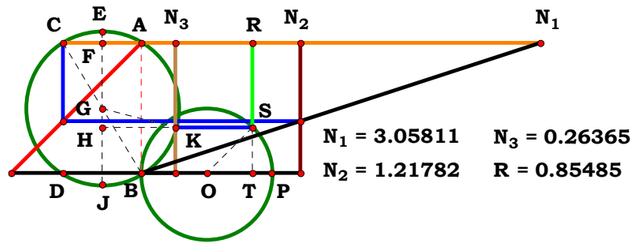
$$R - \frac{\sqrt{N_1} - \sqrt{4 \cdot N_3 \cdot (N_1 - N_2 + N_1 \cdot N_3) - N_1 + 2 \cdot \sqrt{N_1} \cdot \sqrt{N_1 - 4 \cdot N_3 \cdot (N_1 - N_2 + N_1 \cdot N_3)}}}{\sqrt{N_1} - \sqrt{N_1 - 4 \cdot N_3 \cdot (N_1 - N_2 + N_1 \cdot N_3)}} = 0$$

$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$ $N_1 - \frac{X}{o} = 0$ $N_2 - \frac{Y}{p} = 0$ $N_3 - \frac{Z}{q} = 0$

$$R - \frac{C \cdot \sqrt{N_u} \cdot (A \cdot B)^{\frac{3}{4}} - \sqrt{A} \cdot \sqrt{4 \cdot \sqrt{A \cdot B} \cdot N_u^2 \cdot (B \cdot C - A \cdot C + B \cdot N_u) - \sqrt{N_u} \cdot B \cdot C \cdot \left[C \cdot \sqrt{N_u} \cdot \sqrt{A \cdot B} - 2 \cdot \sqrt{A} \cdot \sqrt{4 \cdot A \cdot C \cdot N_u^2 + B \cdot N_u \cdot (C^2 - 4 \cdot C \cdot N_u - 4 \cdot N_u^2)}\right]}}{\left(C \cdot \sqrt{N_u} \cdot \sqrt{A \cdot B} - \sqrt{A} \cdot \sqrt{4 \cdot A \cdot C \cdot N_u^2 - 4 \cdot B \cdot N_u^3 - 4 \cdot B \cdot C \cdot N_u^2 + B \cdot C^2 \cdot N_u}\right) \cdot (A \cdot B)^{\frac{1}{4}}} = 0$$

$$R - \frac{\sqrt{X} \cdot q \cdot (o \cdot p)^{\frac{3}{4}} - \sqrt{o} \cdot \sqrt{\sqrt{o \cdot p} \cdot (4 \cdot X \cdot Z^2 \cdot p - X \cdot p \cdot q^2 + 4 \cdot X \cdot Z \cdot p \cdot q - 4 \cdot Y \cdot Z \cdot o \cdot q) + 2 \cdot \sqrt{X} \cdot \sqrt{o} \cdot p \cdot q \cdot \sqrt{X \cdot p \cdot q^2 - 4 \cdot X \cdot Z^2 \cdot p - 4 \cdot X \cdot Z \cdot p \cdot q + 4 \cdot Y \cdot Z \cdot o \cdot q}}}{(o \cdot p)^{\frac{1}{4}} \cdot \left(\sqrt{X} \cdot q \cdot \sqrt{o \cdot p} - \sqrt{o} \cdot \sqrt{X \cdot p \cdot q^2 - 4 \cdot X \cdot Z^2 \cdot p - 4 \cdot X \cdot Z \cdot p \cdot q + 4 \cdot Y \cdot Z \cdot o \cdot q}\right)} = 0$$

4RST10CAB1R2



Unit. $AB := 1$ Given. $N_1 := 3.05811$ $N_2 := 1.21782$ $N_3 := .26365$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

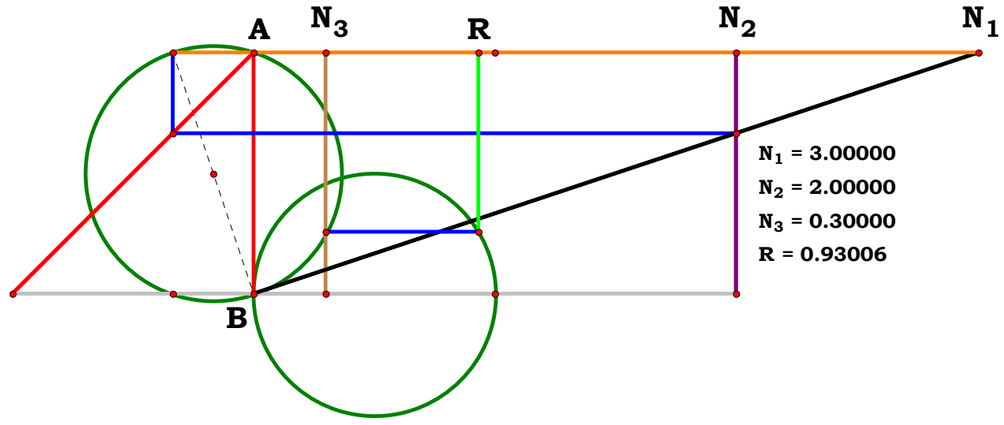
$AC := \frac{N_1 - N_2}{N_1}$ $EJ := \sqrt{AB^2 + AC^2}$ $AF := \frac{AC}{2}$

$EF := \frac{EJ - AB}{2}$ $GK := \frac{EJ}{2}$ $HK := AF + N_3$

$GH := \sqrt{GK^2 - HK^2}$ $ST := GK - (GH + EF)$

$BP := AB$ $BO := \frac{BP}{2}$ $OT := \sqrt{BO^2 - ST^2}$

$R := BO + OT$ $R = 0.854855$



Definitions.

$$\frac{\sqrt{N_1}+\sqrt{((4\cdot N_3\cdot((N_1-N_2)+N_1\cdot N_3))-N_1)+2\cdot\sqrt{N_1}\cdot\sqrt{N_1-(4\cdot N_3\cdot((N_1-N_2)+N_1\cdot N_3))}}}{2\cdot\sqrt{N_1}} - R = 0.00000$$

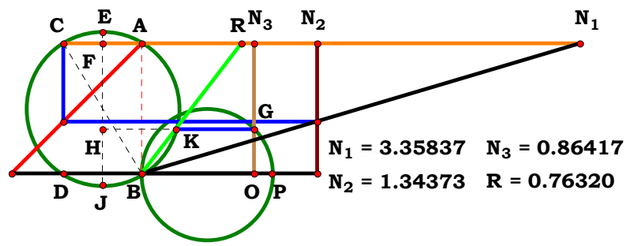
$$R - \frac{\sqrt{4\cdot N_3^2 + 4\cdot AC\cdot N_3 + 2\cdot\sqrt{1 - 4\cdot AC\cdot N_3 - 4\cdot N_3^2} - 1} + 1}{2} = 0$$

$$R - \frac{\sqrt{N_1} + \sqrt{4\cdot N_3\cdot(N_1 - N_2 + N_1\cdot N_3) - N_1 + 2\cdot\sqrt{N_1}\cdot\sqrt{N_1 - 4\cdot N_3\cdot(N_1 - N_2 + N_1\cdot N_3)}}}{2\cdot\sqrt{N_1}} = 0 \qquad N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0 \qquad N_1 - \frac{X}{o} = 0 \quad N_2 - \frac{Y}{p} = 0 \quad N_3 - \frac{Z}{q} = 0$$

$$R - \frac{\sqrt{A}\cdot\sqrt{-\sqrt{N_u}\cdot\left[\sqrt{N_u}\cdot\sqrt{A\cdot B}\cdot\left[B\cdot C^2 + 4\cdot C\cdot N_u\cdot(A - B) - 4\cdot B\cdot N_u^2\right] - 2\cdot\sqrt{A}\cdot B\cdot C\cdot\sqrt{N_u\cdot\left[B\cdot C^2 + 4\cdot C\cdot N_u\cdot(A - B) - 4\cdot B\cdot N_u^2\right]}\right]} + C\cdot\sqrt{N_u}\cdot(A\cdot B)^{\frac{3}{4}}}{2\cdot\sqrt{N_u}\cdot(A\cdot B)^{\frac{3}{4}}\cdot C} = 0$$

$$R - \frac{\sqrt{o}\cdot\sqrt{2\cdot\sqrt{X}\cdot\sqrt{o}\cdot p\cdot q\cdot\sqrt{X\cdot p\cdot q^2 - 4\cdot Z\cdot(X\cdot Z\cdot p + X\cdot p\cdot q - Y\cdot o\cdot q)}} - \sqrt{o\cdot p}\cdot\left[X\cdot p\cdot q^2 - 4\cdot Z\cdot(X\cdot Z\cdot p + X\cdot p\cdot q - Y\cdot o\cdot q)\right] + \sqrt{X}\cdot q\cdot(o\cdot p)^{\frac{3}{4}}}{2\cdot\sqrt{X}\cdot(o\cdot p)^{\frac{3}{4}}\cdot q} = 0$$

4RST10CAB1R3



Unit. $AB := 1$ Given. $N_1 := 3.35837$ $N_2 := 1.34373$ $N_3 := .86417$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

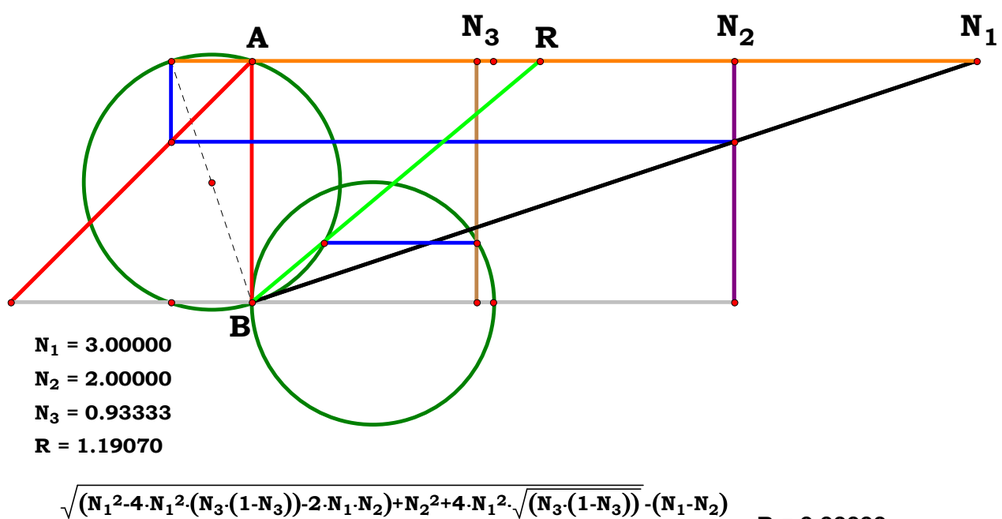
$AC := \frac{N_1 - N_2}{N_1}$ $EJ := \sqrt{AB^2 + AC^2}$

$AF := \frac{AC}{2}$ $EF := \frac{EJ - AB}{2}$

$BP := AB$ $GO := \sqrt{N_3 \cdot (BP - N_3)}$

$HJ := GO + EF$ $HK := \sqrt{HJ \cdot (EJ - HJ)}$

$R := \frac{HK - AF}{GO}$ $R = 0.763199$



Definitions.

$$\frac{\sqrt{(N_1^2-4\cdot N_1^2\cdot(N_3\cdot(1-N_3))-2\cdot N_1\cdot N_2)+N_2^2+4\cdot N_1^2\cdot\sqrt{(N_3\cdot(1-N_3))}}-(N_1-N_2)}{2\cdot N_1\cdot\sqrt{(N_3\cdot(1-N_3))}}-R = 0.00000$$

$$R - \frac{\sqrt{AC^2 + 4\cdot N_3\cdot(N_3-1) + 4\cdot\sqrt{N_3\cdot(1-N_3)}} - AC}{2\cdot\sqrt{N_3\cdot(1-N_3)}} = 0$$

$$R - \frac{\sqrt{N_1^2 - 4\cdot N_1^2\cdot N_3\cdot(1-N_3) - 2\cdot N_1\cdot N_2 + N_2^2 + 4\cdot N_1^2\cdot\sqrt{N_3\cdot(1-N_3)}} - (N_1 - N_2)}{2\cdot N_1\cdot\sqrt{N_3\cdot(1-N_3)}} = 0$$

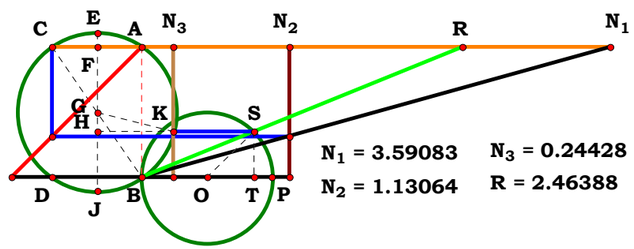
$$N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0$$

$$R - \frac{C\cdot(A-B) + \sqrt{A^2\cdot C^2 + B^2\cdot C^2 + 4\cdot B^2\cdot N_u^2 - 2\cdot A\cdot B\cdot C^2 - 4\cdot B^2\cdot C\cdot N_u + 4\cdot B^2\cdot C\cdot\sqrt{N_u\cdot(C-N_u)}}}{2\cdot B\cdot\sqrt{N_u\cdot(C-N_u)}} = 0$$

$$N_1 - \frac{X}{o} = 0 \quad N_2 - \frac{Y}{p} = 0 \quad N_3 - \frac{Z}{q} = 0$$

$$R - \frac{\sqrt{4\cdot X^2\cdot Z^2\cdot p^2 - 4\cdot X^2\cdot Z\cdot p^2\cdot q + X^2\cdot p^2\cdot q^2 + Y^2\cdot o^2\cdot q^2 + 4\cdot X^2\cdot p^2\cdot q\cdot\sqrt{Z\cdot q - Z^2} - 2\cdot X\cdot Y\cdot o\cdot p\cdot q^2} - q\cdot(X\cdot p - Y\cdot o)}{2\cdot X\cdot p\cdot\sqrt{Z\cdot q - Z^2}} = 0$$

4RST10CAB1R4



Unit. $AB := 1$ Given. $N_1 := 3.59083$ $N_2 := 1.13064$ $N_3 := .24428$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

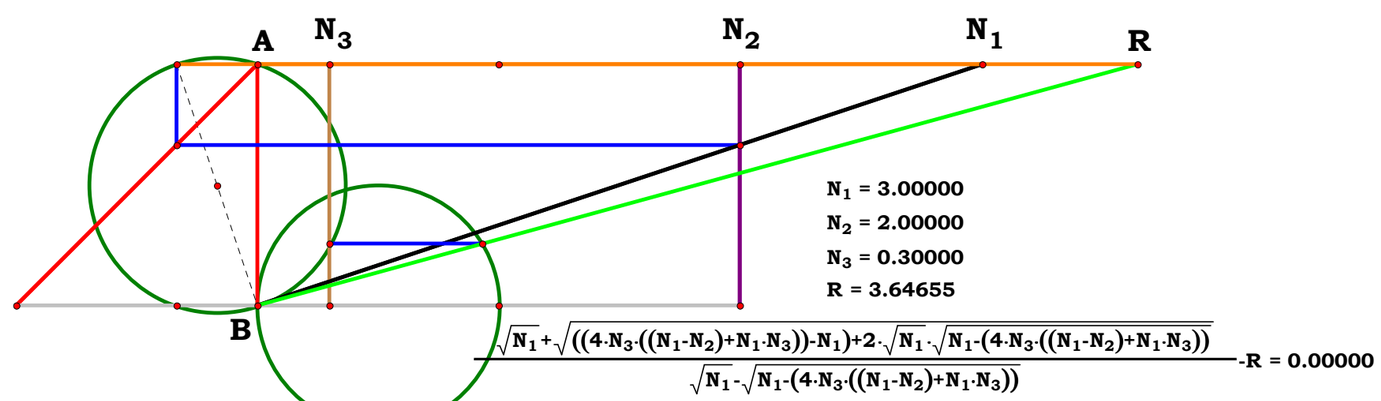
$AC := \frac{N_1 - N_2}{N_1}$ $EJ := \sqrt{AB^2 + AC^2}$ $AF := \frac{AC}{2}$

$EF := \frac{EJ - AB}{2}$ $GK := \frac{EJ}{2}$ $HK := AF + N_3$

$GH := \sqrt{GK^2 - HK^2}$ $ST := GK - (GH + EF)$

$BP := AB$ $BO := \frac{BP}{2}$ $OT := \sqrt{BO^2 - ST^2}$

$BT := BO + OT$ $R := \frac{BT}{ST}$ $R = 2.46388$



Definitions.

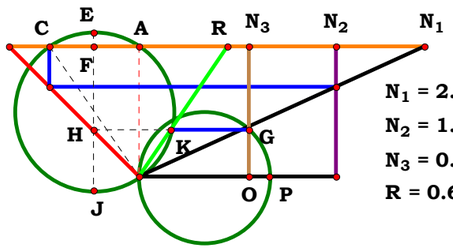
$$R - \frac{\sqrt{4 \cdot N_3 \cdot (AC + N_3) + 2 \cdot \sqrt{1 - 4 \cdot N_3 \cdot (AC + N_3)} - 1} + 1}{1 - \sqrt{1 - 4 \cdot N_3 \cdot (AC + N_3)}} = 0$$

$$R - \frac{\sqrt{N_1} + \sqrt{4 \cdot N_3 \cdot (N_1 - N_2 + N_1 \cdot N_3) - N_1 + 2 \cdot \sqrt{N_1} \cdot \sqrt{N_1 - 4 \cdot N_3 \cdot (N_1 - N_2 + N_1 \cdot N_3)}}}{\sqrt{N_1} - \sqrt{N_1 - 4 \cdot N_3 \cdot (N_1 - N_2 + N_1 \cdot N_3)}} = 0 \quad N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0 \quad N_1 - \frac{X}{o} = 0 \quad N_2 - \frac{Y}{p} = 0 \quad N_3 - \frac{Z}{q} = 0$$

$$R - \frac{\sqrt{A} \cdot \sqrt{-\sqrt{N_u} \cdot \left[\sqrt{N_u} \cdot \sqrt{A \cdot B} \cdot \left(B \cdot C^2 - 4 \cdot B \cdot {N_u}^2 + 4 \cdot A \cdot C \cdot N_u - 4 \cdot B \cdot C \cdot N_u\right) - 2 \cdot \sqrt{A} \cdot B \cdot C \cdot \sqrt{N_u \cdot \left(B \cdot C^2 - 4 \cdot B \cdot {N_u}^2 + 4 \cdot A \cdot C \cdot N_u - 4 \cdot B \cdot C \cdot N_u\right)}\right]} + C \cdot \sqrt{N_u} \cdot (A \cdot B)^{\frac{3}{4}}}{(A \cdot B)^{\frac{1}{4}} \cdot \left[C \cdot \sqrt{N_u} \cdot \sqrt{A \cdot B} - \sqrt{A} \cdot \sqrt{N_u \cdot \left(B \cdot C^2 - 4 \cdot B \cdot {N_u}^2 + 4 \cdot A \cdot C \cdot N_u - 4 \cdot B \cdot C \cdot N_u\right)}\right]} = 0$$

$$R - \frac{\sqrt{o} \cdot \sqrt{\sqrt{o \cdot p} \cdot \left(4 \cdot X \cdot Z^2 \cdot p - X \cdot p \cdot q^2 + 4 \cdot X \cdot Z \cdot p \cdot q - 4 \cdot Y \cdot Z \cdot o \cdot q\right) + 2 \cdot \sqrt{X} \cdot \sqrt{o} \cdot p \cdot q \cdot \sqrt{X \cdot p \cdot q^2 - 4 \cdot X \cdot Z^2 \cdot p - 4 \cdot X \cdot Z \cdot p \cdot q + 4 \cdot Y \cdot Z \cdot o \cdot q}} + \sqrt{X} \cdot q \cdot (o \cdot p)^{\frac{3}{4}}}{\left(\sqrt{X} \cdot q \cdot \sqrt{o \cdot p} - \sqrt{o} \cdot \sqrt{X \cdot p \cdot q^2 - 4 \cdot X \cdot Z^2 \cdot p - 4 \cdot X \cdot Z \cdot p \cdot q + 4 \cdot Y \cdot Z \cdot o \cdot q}\right) \cdot (o \cdot p)^{\frac{1}{4}}} = 0$$

4RST10CAB2R3



$N_1 = 2.18639$
$N_2 = 1.50839$
$N_3 = 0.84480$
$R = 0.68113$

Unit. $AB := 1$ **Given.** $N_1 := 2.18639$ $N_2 := 1.50839$ $N_3 := .84480$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

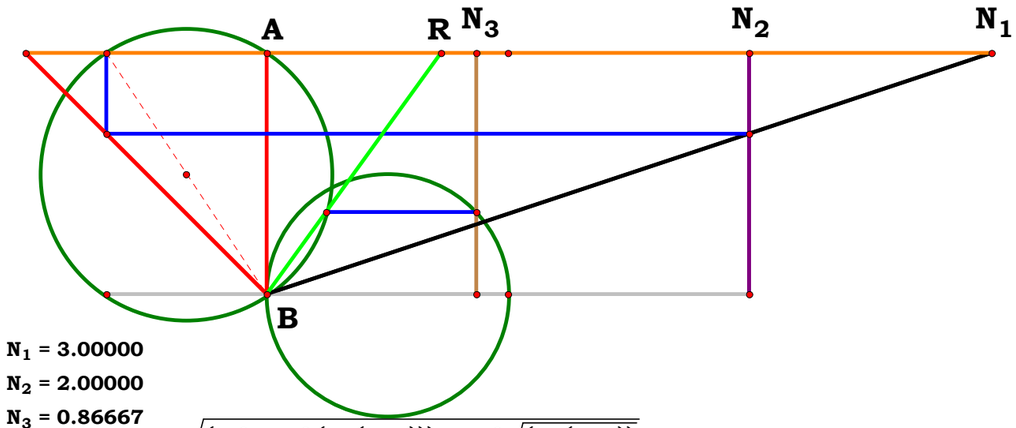
$AC := \frac{N_2}{N_1}$ $EJ := \sqrt{AB^2 + AC^2}$

$AF := \frac{AC}{2}$ $EF := \frac{EJ - AB}{2}$

$BP := AB$ $GO := \sqrt{N_3 \cdot (BP - N_3)}$

$HJ := GO + EF$ $HK := \sqrt{HJ \cdot (EJ - HJ)}$

$R := \frac{HK - AF}{GO}$ $R = 0.681133$



$N_1 = 3.00000$
$N_2 = 2.00000$
$N_3 = 0.86667$
$R = 0.72332$

$\frac{\sqrt{(N_2^2 - 4 \cdot N_1^2 \cdot (N_3 \cdot (1 - N_3))) + 4 \cdot N_1^2 \cdot \sqrt{(N_3 \cdot (1 - N_3))}} - N_2}{2 \cdot N_1 \cdot \sqrt{(N_3 \cdot (1 - N_3))}} - R = 0.00000$

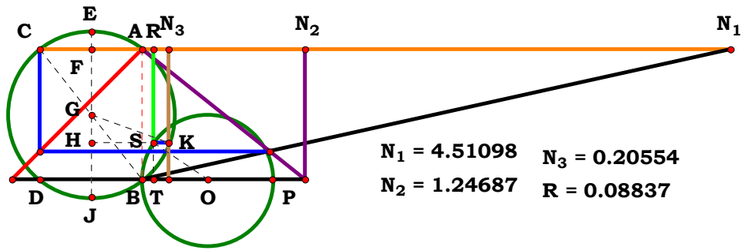
Definitions.

$R - \frac{\sqrt{N_2^2 - 4 \cdot N_1^2 \cdot N_3 \cdot (1 - N_3) + 4 \cdot N_1^2 \cdot \sqrt{N_3 \cdot (1 - N_3)}} - N_2}{2 \cdot N_1 \cdot \sqrt{N_3 \cdot (1 - N_3)}} = 0$ $N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$

$R - \frac{\sqrt{A^2 \cdot C^2 + 4 \cdot B^2 \cdot N_u^2 - 4 \cdot B^2 \cdot C \cdot N_u + 4 \cdot B^2 \cdot C \cdot \sqrt{N_u \cdot (C - N_u)}} - A \cdot C}{2 \cdot B \cdot \sqrt{N_u \cdot (C - N_u)}} = 0$ $N_1 - \frac{X}{o} = 0$ $N_2 - \frac{Y}{p} = 0$ $N_3 - \frac{Z}{q} = 0$

$R - \frac{\sqrt{4 \cdot X^2 \cdot Z^2 \cdot p^2 + Y^2 \cdot o^2 \cdot q^2 - 4 \cdot X^2 \cdot Z \cdot p^2 \cdot q + 4 \cdot X^2 \cdot p^2 \cdot q \cdot \sqrt{Z \cdot q - Z^2}} - Y \cdot o \cdot q}{2 \cdot X \cdot p \cdot \sqrt{Z \cdot q - Z^2}} = 0$

4RST10CAB3R0



Unit. $AB := 1$ Given. $N_1 := 4.51098$ $N_2 := 1.24687$ $N_3 := .20554$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

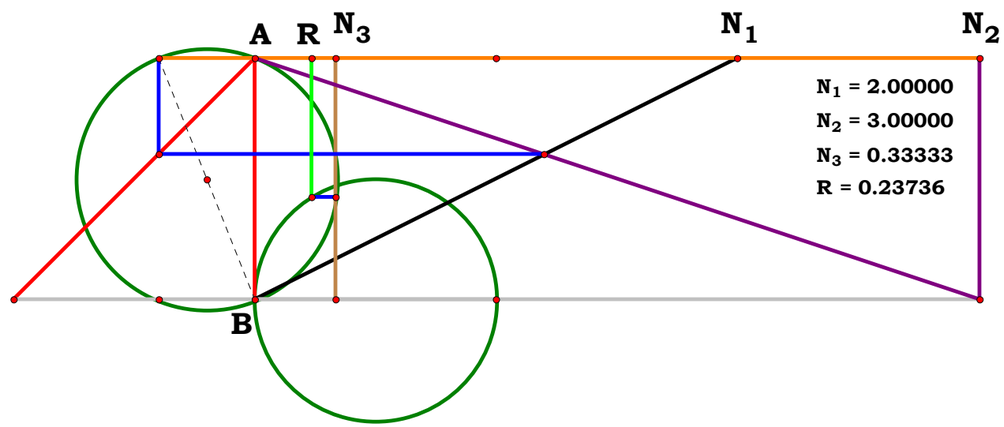
$AC := \frac{N_1}{N_1 + N_2}$ $EJ := \sqrt{AB^2 + AC^2}$ $AF := \frac{AC}{2}$

$EF := \frac{EJ - AB}{2}$ $GK := \frac{EJ}{2}$ $HK := AF + N_3$

$GH := \sqrt{GK^2 - HK^2}$ $ST := GK - (GH + EF)$

$BP := AB$ $BO := \frac{BP}{2}$ $OT := \sqrt{BO^2 - ST^2}$

$R := BO - OT$ $R = 0.088378$



$$\frac{\sqrt{(N_1+N_2)}\cdot\sqrt{4\cdot N_1\cdot N_3+(N_1+N_2)\cdot(4\cdot N_3{}^2-1)+2\cdot\sqrt{(N_1+N_2)}\cdot\sqrt{(N_1+N_2)-4\cdot N_3{}^2\cdot(N_1+N_2)-4\cdot N_1\cdot N_3}}}{2\cdot\sqrt{(N_1+N_2)}} - R = 0.00000$$

Definitions.

$$R - \frac{\sqrt{N_1 + N_2} - \sqrt{4\cdot N_1\cdot N_3 + \left(4\cdot N_3{}^2 - 1\right)\cdot\left(N_1 + N_2\right) + 2\cdot\sqrt{N_1 + N_2}\cdot\sqrt{N_1 + N_2 - 4\cdot N_3{}^2\cdot\left(N_1 + N_2\right) - 4\cdot N_1\cdot N_3}}}{2\cdot\sqrt{N_1 + N_2}} = 0$$

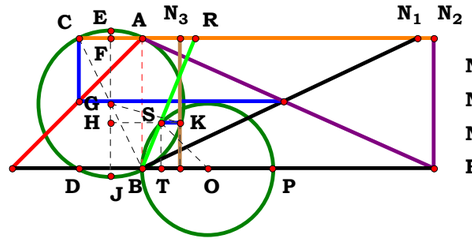
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$

$$R - \frac{C\cdot\sqrt{N_u\cdot(A+B)} - \sqrt{N_u\cdot\left(4\cdot A\cdot N_u{}^2 - B\cdot C^2 - A\cdot C^2 + 4\cdot B\cdot N_u{}^2 + 4\cdot B\cdot C\cdot N_u\right) + 2\cdot C\cdot\sqrt{N_u\cdot(A+B)}\cdot\sqrt{N_u\cdot\left(A\cdot C^2 + B\cdot C^2 - 4\cdot A\cdot N_u{}^2 - 4\cdot B\cdot N_u{}^2 - 4\cdot B\cdot C\cdot N_u\right)}}}{2\cdot C\cdot\sqrt{N_u\cdot(A+B)}} = 0$$

$N_1 - \frac{X}{o} = 0$ $N_2 - \frac{Y}{p} = 0$ $N_3 - \frac{Z}{q} = 0$

$$R - \frac{q\cdot\sqrt{X\cdot p + Y\cdot o} - \sqrt{4\cdot X\cdot Z^2\cdot p + 4\cdot Y\cdot Z^2\cdot o - X\cdot p\cdot q^2 - Y\cdot o\cdot q^2 + 2\cdot q\cdot\sqrt{X\cdot p + Y\cdot o}\cdot\sqrt{X\cdot p\cdot q^2 - 4\cdot Y\cdot Z^2\cdot o - 4\cdot X\cdot Z^2\cdot p + Y\cdot o\cdot q^2 - 4\cdot X\cdot Z\cdot p\cdot q} + 4\cdot X\cdot Z\cdot p\cdot q}}{2\cdot\sqrt{X\cdot p + Y\cdot o}\cdot q} = 0$$

4RST10CAB3R1



$N_1 = 2.10891$
$N_2 = 2.23482$
$N_3 = 0.29271$
$R = 0.40996$

Unit. $AB := 1$ Given. $N_1 := 2.10891$ $N_2 := 2.23482$ $N_3 := .29271$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

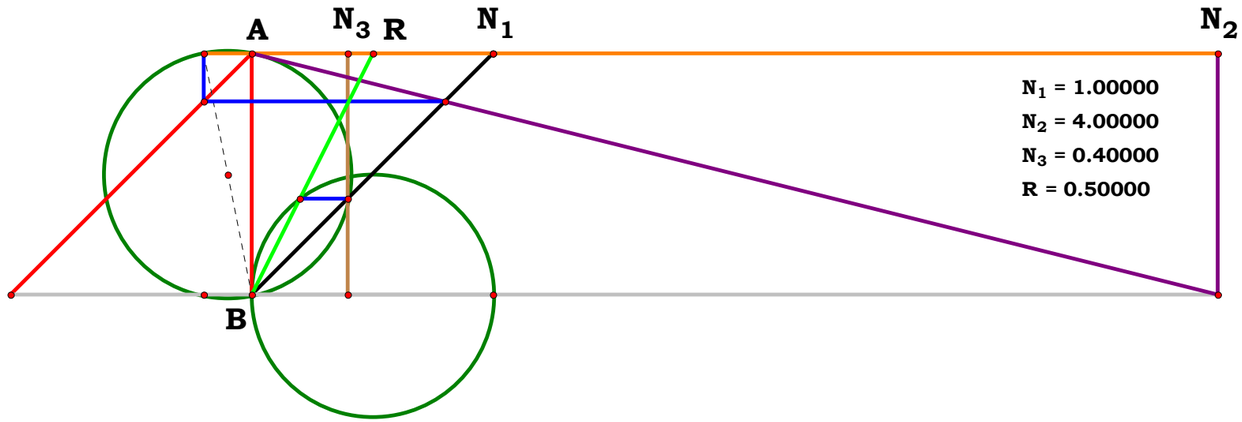
$AC := \frac{N_1}{N_1 + N_2}$ $EJ := \sqrt{AB^2 + AC^2}$ $AF := \frac{AC}{2}$

$EF := \frac{EJ - AB}{2}$ $GK := \frac{EJ}{2}$ $HK := AF + N_3$

$GH := \sqrt{GK^2 - HK^2}$ $ST := GK - (GH + EF)$

$BP := AB$ $BO := \frac{BP}{2}$ $OT := \sqrt{BO^2 - ST^2}$

$BT := BO - OT$ $R := \frac{BT}{ST}$ $R = 0.409965$



$N_1 = 1.00000$
$N_2 = 4.00000$
$N_3 = 0.40000$
$R = 0.50000$

$$\frac{\sqrt{(N_1+N_2)}-\sqrt{((4\cdot N_3\cdot(N_1+N_1\cdot N_3+N_2\cdot N_3))-(N_1+N_2))}+2\cdot\sqrt{(N_1+N_2)}\cdot\sqrt{(N_1+N_2)-(4\cdot N_3\cdot(N_1+N_1\cdot N_3+N_2\cdot N_3))}}{\sqrt{(N_1+N_2)}-\sqrt{(N_1+N_2)-(4\cdot N_3\cdot(N_1+N_1\cdot N_3+N_2\cdot N_3))}}-R = 0.00000$$

Definitions.

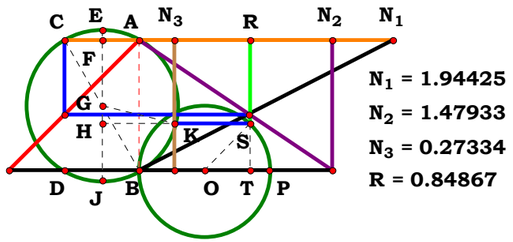
$$R - \frac{\sqrt{N_1 + N_2} - \sqrt{4\cdot N_3\cdot\left(N_1 + N_1\cdot N_3 + N_2\cdot N_3\right) - \left(N_1 + N_2\right) + 2\cdot\sqrt{N_1 + N_2}\cdot\sqrt{N_1 + N_2 - 4\cdot N_3\cdot\left(N_1 + N_1\cdot N_3 + N_2\cdot N_3\right)}}}{\sqrt{N_1 + N_2} - \sqrt{N_1 + N_2 - 4\cdot N_3\cdot\left(N_1 + N_1\cdot N_3 + N_2\cdot N_3\right)}} = 0 \qquad N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0$$

$$R - \frac{C\cdot\sqrt{N_u\cdot(A+B)} - \sqrt{4\cdot A\cdot {N_u}^3 + 4\cdot B\cdot {N_u}^3 + 2\cdot C\cdot\sqrt{N_u\cdot(A+B)}\cdot\sqrt{N_u\cdot\left(A\cdot C^2 + B\cdot C^2 - 4\cdot A\cdot {N_u}^2 - 4\cdot B\cdot {N_u}^2 - 4\cdot B\cdot C\cdot N_u\right)} - A\cdot C^2\cdot N_u - B\cdot C\cdot N_u\cdot\left(C - 4\cdot N_u\right)}}{C\cdot\sqrt{N_u\cdot(A+B)} - \sqrt{N_u\cdot\left(A\cdot C^2 + B\cdot C^2 - 4\cdot A\cdot {N_u}^2 - 4\cdot B\cdot {N_u}^2 - 4\cdot B\cdot C\cdot N_u\right)}} = 0$$

$N_1 - \frac{X}{o} = 0$ $N_2 - \frac{Y}{p} = 0$ $N_3 - \frac{Z}{q} = 0$

$$R - \frac{q\cdot\sqrt{X\cdot p + Y\cdot o} - \sqrt{(2\cdot Z - q)\cdot(2\cdot Z + q)\cdot(X\cdot p + Y\cdot o) + 2\cdot q\cdot\sqrt{X\cdot p + Y\cdot o}\cdot\sqrt{\left(q^2 - 4\cdot Z^2\right)\cdot(X\cdot p + Y\cdot o) - 4\cdot X\cdot Z\cdot p\cdot q} + 4\cdot X\cdot Z\cdot p\cdot q}}{q\cdot\sqrt{X\cdot p + Y\cdot o} - \sqrt{\left(q^2 - 4\cdot Z^2\right)\cdot(X\cdot p + Y\cdot o) - 4\cdot X\cdot Z\cdot p\cdot q}} = 0$$

4RST10CAB3R2



Unit. $AB := 1$ Given. $N_1 := 1.94425$ $N_2 := 1.47933$ $N_3 := .27334$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

$AC := \frac{N_1}{N_1 + N_2}$ $EJ := \sqrt{AB^2 + AC^2}$

$AF := \frac{AC}{2}$ $EF := \frac{EJ - AB}{2}$

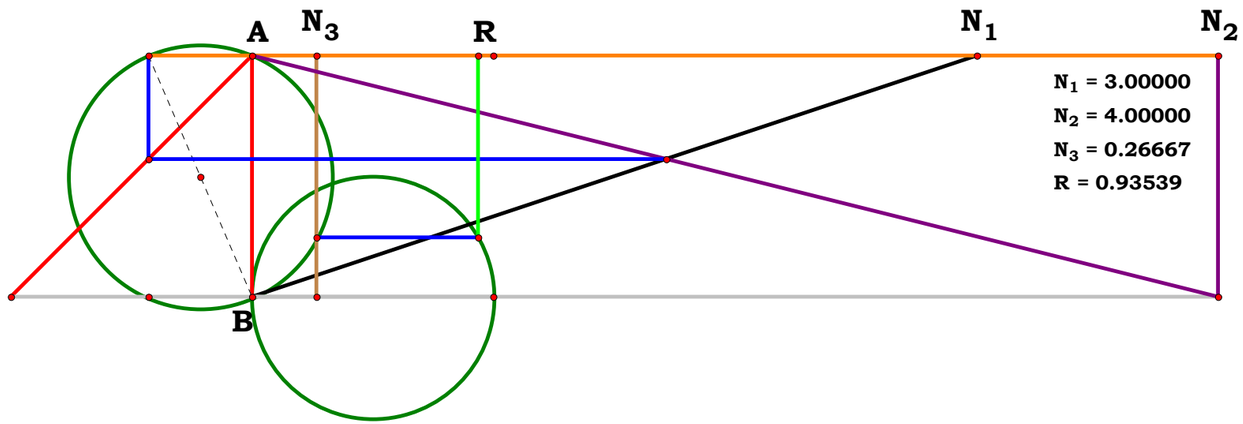
$GK := \frac{EJ}{2}$ $HK := AF + N_3$

$GH := \sqrt{GK^2 - HK^2}$ $ST := GK - (GH + EF)$

$BP := AB$ $BO := \frac{BP}{2}$

$OT := \sqrt{BO^2 - ST^2}$ $R := BO + OT$

$R = 0.848658$



$$\frac{\sqrt{(N_1+N_2)}+\sqrt{((4\cdot N_3\cdot(N_1+N_1\cdot N_3+N_2\cdot N_3))-(N_1+N_2))+2\cdot\sqrt{(N_1+N_2)}\cdot\sqrt{(N_1+N_2)-(4\cdot N_3\cdot(N_1+N_1\cdot N_3+N_2\cdot N_3))}}}{2\cdot\sqrt{(N_1+N_2)}} - R = 0.00000$$

Definitions.

$$R - \frac{\sqrt{N_1 + N_2} + \sqrt{4\cdot N_3\cdot\left(N_1 + N_1\cdot N_3 + N_2\cdot N_3\right) - \left(N_1 + N_2\right) + 2\cdot\sqrt{N_1 + N_2}\cdot\sqrt{N_1 + N_2 - 4\cdot N_3\cdot\left(N_1 + N_1\cdot N_3 + N_2\cdot N_3\right)}}}{2\cdot\sqrt{N_1 + N_2}} = 0$$

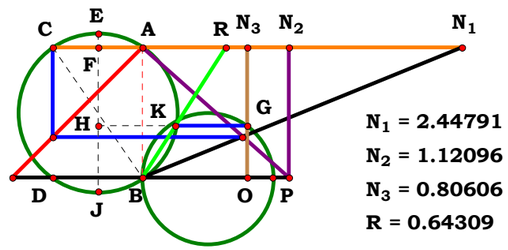
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$

$$R - \frac{\sqrt{N_u\cdot\left(4\cdot A\cdot N_u^2 - B\cdot C^2 - A\cdot C^2 + 4\cdot B\cdot N_u^2 + 4\cdot B\cdot C\cdot N_u\right)} + 2\cdot C\cdot\sqrt{N_u\cdot(A+B)}\cdot\sqrt{N_u\cdot\left(A\cdot C^2 + B\cdot C^2 - 4\cdot A\cdot N_u^2 - 4\cdot B\cdot N_u^2 - 4\cdot B\cdot C\cdot N_u\right)} + C\cdot\sqrt{N_u\cdot(A+B)}}{2\cdot\sqrt{N_u\cdot(A+B)}\cdot C} = 0$$

$N_1 - \frac{X}{o} = 0$ $N_2 - \frac{Y}{p} = 0$ $N_3 - \frac{Z}{q} = 0$

$$R - \frac{\sqrt{4\cdot Z^2\cdot(X\cdot p + Y\cdot o) - X\cdot p\cdot q^2 - Y\cdot o\cdot q^2 + 4\cdot X\cdot Z\cdot p\cdot q + 2\cdot q\cdot\sqrt{X\cdot p + Y\cdot o}\cdot\sqrt{X\cdot p\cdot q^2 - 4\cdot Y\cdot Z^2\cdot o - 4\cdot X\cdot Z^2\cdot p + Y\cdot o\cdot q^2 - 4\cdot X\cdot Z\cdot p\cdot q}} + q\cdot\sqrt{X\cdot p + Y\cdot o}}{2\cdot q\cdot\sqrt{X\cdot p + Y\cdot o}} = 0$$

4RST10CAB3R3



$N_1 = 2.44791$
$N_2 = 1.12096$
$N_3 = 0.80606$
$R = 0.64309$

Unit. $AB := 1$ **Given.** $N_1 := 2.44791$ $N_2 := 1.12096$ $N_3 := .80606$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

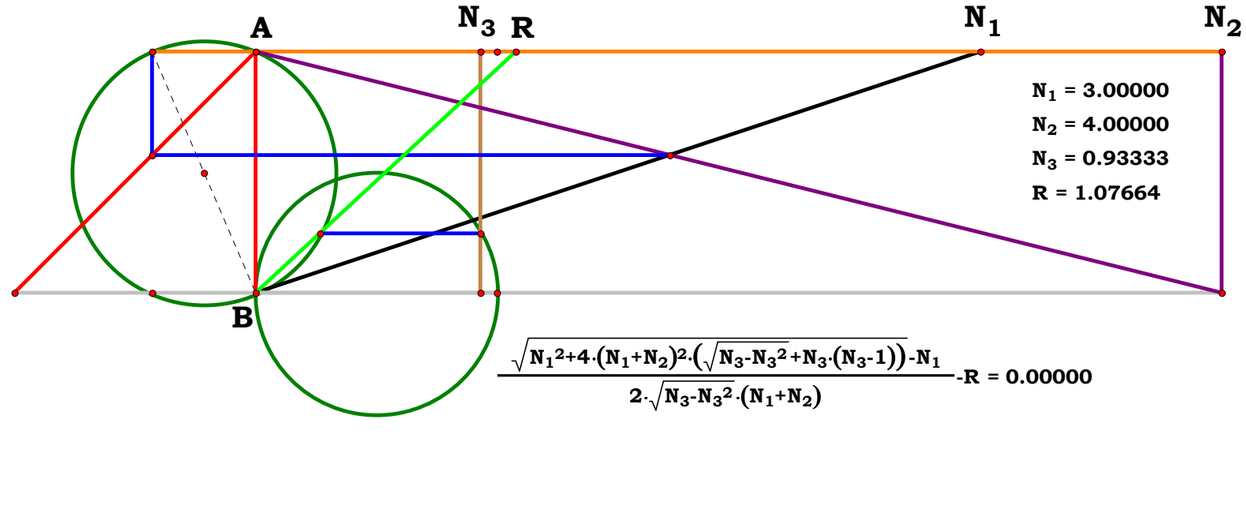
$AC := \frac{N_1}{N_1 + N_2}$ $EJ := \sqrt{AB^2 + AC^2}$

$AF := \frac{AC}{2}$ $EF := \frac{EJ - AB}{2}$

$BP := AB$ $GO := \sqrt{N_3 \cdot (BP - N_3)}$

$HJ := GO + EF$ $HK := \sqrt{HJ \cdot (EJ - HJ)}$

$R := \frac{HK - AF}{GO}$ $R = 0.643092$



$N_1 = 3.00000$
$N_2 = 4.00000$
$N_3 = 0.93333$
$R = 1.07664$

$$\frac{\sqrt{N_1{}^2+4\cdot(N_1+N_2)^2\cdot\left(\sqrt{N_3-N_3{}^2}+N_3\cdot(N_3-1)\right)}-N_1}{2\cdot\sqrt{N_3-N_3{}^2}\cdot(N_1+N_2)}-R = 0.00000$$

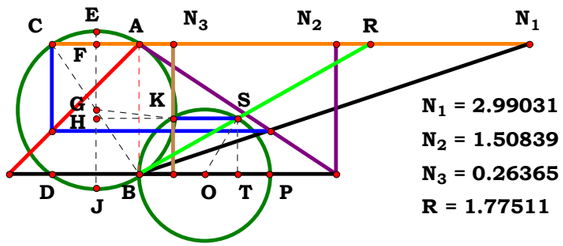
Definitions.

$$R - \frac{\sqrt{N_1{}^2 + 4\cdot(N_1+N_2)^2\cdot\left[\sqrt{N_3 - N_3{}^2} + N_3\cdot(N_3-1)\right]} - N_1}{2\cdot\sqrt{N_3 - N_3{}^2}\cdot(N_1+N_2)} = 0 \qquad N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0$$

$$R - \frac{\sqrt{B^2\cdot C^2 - 4\cdot N_u\cdot(A+B)^2\cdot(C-N_u) + 4\cdot C\cdot(A+B)^2\cdot\sqrt{C\cdot N_u - N_u{}^2}} - B\cdot C}{2\cdot(A+B)\cdot\sqrt{N_u\cdot(C-N_u)}} = 0 \qquad N_1 - \frac{X}{o} = 0 \quad N_2 - \frac{Y}{p} = 0 \quad N_3 - \frac{Z}{q} = 0$$

$$R - \frac{\sqrt{4\cdot q\cdot(X\cdot p + Y\cdot o)^2\cdot\sqrt{Z\cdot q - Z^2} + X^2\cdot p^2\cdot(2\cdot Z - q)^2 + 4\cdot Y\cdot Z\cdot o\cdot(Z-q)\cdot(2\cdot X\cdot p + Y\cdot o)} - X\cdot p\cdot q}{2\cdot(X\cdot p + Y\cdot o)\cdot\sqrt{Z\cdot q - Z^2}} = 0$$

4RST10CAB3R4



$N_1 = 2.99031$
$N_2 = 1.50839$
$N_3 = 0.26365$
$R = 1.77511$

Unit. $AB := 1$ Given. $N_1 := 2.99031$ $N_2 := 1.50829$ $N_3 := .26365$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

$AC := \frac{N_1}{N_1 + N_2}$ $EJ := \sqrt{AB^2 + AC^2}$

$AF := \frac{AC}{2}$ $EF := \frac{EJ - AB}{2}$

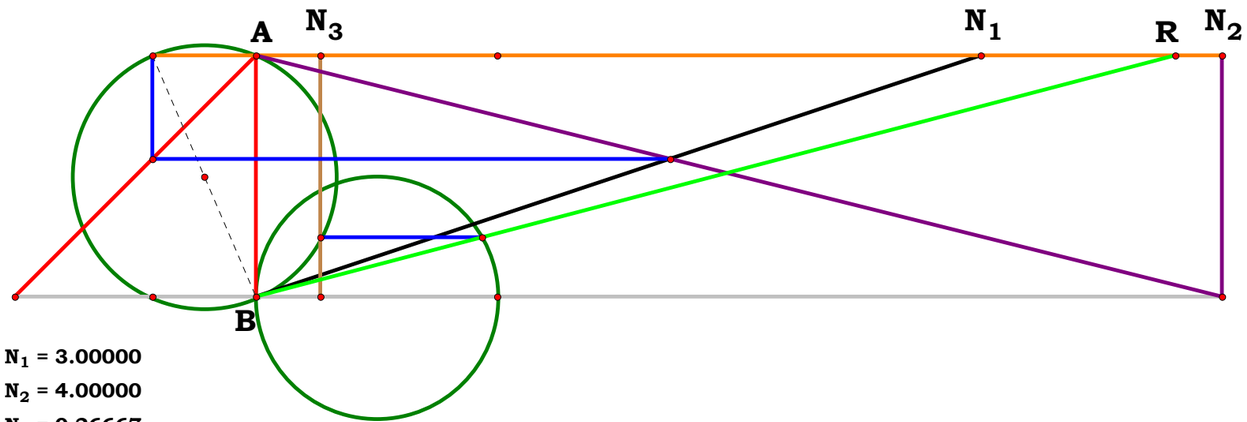
$GK := \frac{EJ}{2}$ $HK := AF + N_3$

$GH := \sqrt{GK^2 - HK^2}$ $ST := GK - (GH + EF)$

$BP := AB$ $BO := \frac{BP}{2}$

$OT := \sqrt{BO^2 - ST^2}$ $BT := BO + OT$

$R := \frac{BT}{ST}$ $R = 1.77501$



$N_1 = 3.00000$
$N_2 = 4.00000$
$N_3 = 0.26667$
$R = 3.80507$

$$\frac{\sqrt{(N_1+N_2)}+\sqrt{((4\cdot N_3\cdot(N_1+N_1\cdot N_3+N_2\cdot N_3))-(N_1+N_2))+2\cdot\sqrt{(N_1+N_2)}\cdot\sqrt{(N_1+N_2)-(4\cdot N_3\cdot(N_1+N_1\cdot N_3+N_2\cdot N_3))}}}{\sqrt{(N_1+N_2)}-\sqrt{(N_1+N_2)-(4\cdot N_3\cdot(N_1+N_1\cdot N_3+N_2\cdot N_3))}} - R = 0.00000$$

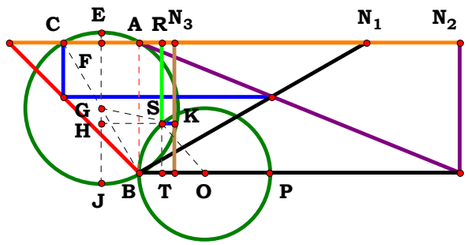
Definitions.

$$R - \frac{\sqrt{N_1+N_2}+\sqrt{4\cdot N_3\cdot\left(N_1+N_1\cdot N_3+N_2\cdot N_3\right)-\left(N_1+N_2\right)+2\cdot\sqrt{N_1+N_2}\cdot\sqrt{N_1+N_2-4\cdot N_3\cdot\left(N_1+N_1\cdot N_3+N_2\cdot N_3\right)}}}{\sqrt{N_1+N_2}-\sqrt{N_1+N_2-4\cdot N_3\cdot\left(N_1+N_1\cdot N_3+N_2\cdot N_3\right)}} = 0 \qquad N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0$$

$$R - \frac{\sqrt{2\cdot C\cdot\sqrt{A+B}\cdot\sqrt{\left(C^2-4\cdot N_u^2\right)\cdot(A+B)-4\cdot B\cdot C\cdot N_u}-\left[\left(C^2-4\cdot N_u^2\right)\cdot(A+B)-4\cdot B\cdot C\cdot N_u\right]}+C\cdot\sqrt{(A+B)}}{C\cdot\sqrt{A+B}-\sqrt{\left(C^2-4\cdot N_u^2\right)\cdot(A+B)-4\cdot B\cdot C\cdot N_u}} = 0 \qquad N_1 - \frac{X}{o} = 0 \quad N_2 - \frac{Y}{p} = 0 \quad N_3 - \frac{Z}{q} = 0$$

$$R - \frac{\sqrt{(2\cdot Z-q)\cdot(2\cdot Z+q)\cdot(X\cdot p+Y\cdot o)+4\cdot X\cdot Z\cdot p\cdot q+2\cdot q\cdot\sqrt{X\cdot p+Y\cdot o}\cdot\sqrt{X\cdot p\cdot q^2-4\cdot Y\cdot Z^2\cdot o-4\cdot X\cdot Z^2\cdot p+Y\cdot o\cdot q^2-4\cdot X\cdot Z\cdot p\cdot q}}+q\cdot\sqrt{X\cdot p+Y\cdot o}}{q\cdot\sqrt{X\cdot p+Y\cdot o}-\sqrt{X\cdot p\cdot q^2-4\cdot Y\cdot Z^2\cdot o-4\cdot X\cdot Z^2\cdot p+Y\cdot o\cdot q^2-4\cdot X\cdot Z\cdot p\cdot q}} = 0$$

4RST10CAB4R0



$N_1 = 1.74085$
$N_2 = 2.45760$
$N_3 = 0.27334$
$x_R = 0.17083$

Unit. $AB := 1$ Given. $N_1 := 1.74085$ $N_2 := 2.45760$ $N_3 := .27334$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

$AC := \frac{N_2}{N_1 + N_2}$ $EJ := \sqrt{AB^2 + AC^2}$

$AF := \frac{AC}{2}$ $EF := \frac{EJ - AB}{2}$

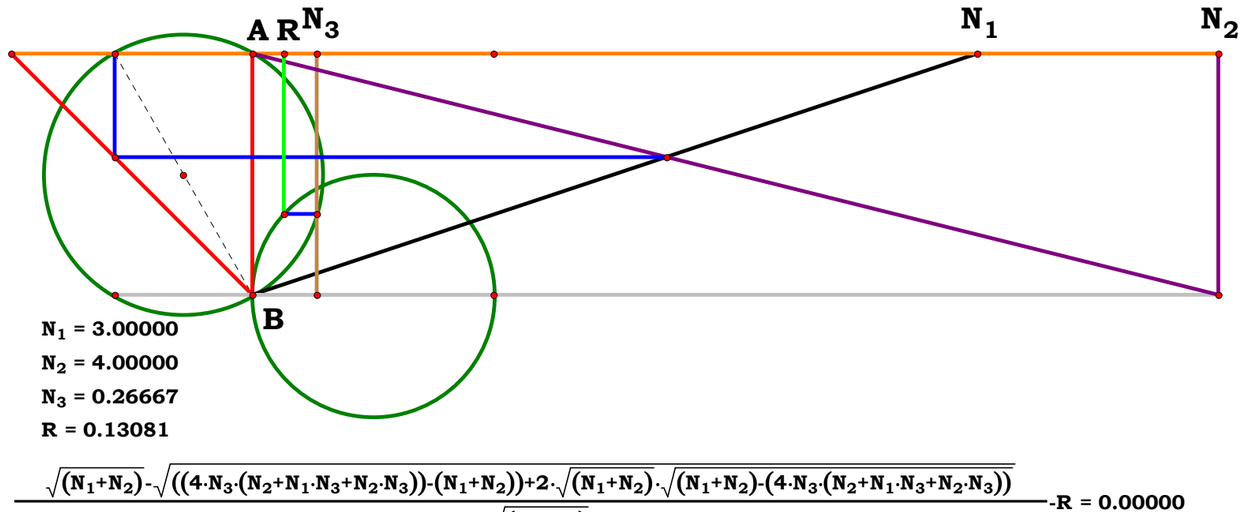
$GK := \frac{EJ}{2}$ $HK := AF + N_3$

$GH := \sqrt{GK^2 - HK^2}$ $ST := GK - (GH + EF)$

$BP := AB$ $BO := \frac{BP}{2}$

$OT := \sqrt{BO^2 - ST^2}$ $R := BO - OT$

$R = 0.170846$



$N_1 = 3.00000$
$N_2 = 4.00000$
$N_3 = 0.26667$
$R = 0.13081$

$\frac{\sqrt{(N_1+N_2)}-\sqrt{((4\cdot N_3\cdot(N_2+N_1\cdot N_3+N_2\cdot N_3))-(N_1+N_2))+2\cdot\sqrt{(N_1+N_2)}\cdot\sqrt{(N_1+N_2)-(4\cdot N_3\cdot(N_2+N_1\cdot N_3+N_2\cdot N_3))}}}{2\cdot\sqrt{(N_1+N_2)}} - R = 0.00000$

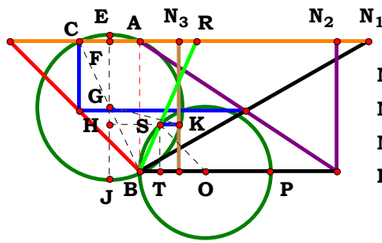
Definitions.

$R - \frac{\sqrt{N_1 + N_2} - \sqrt{4 \cdot N_3 \cdot (N_2 + N_1 \cdot N_3 + N_2 \cdot N_3) - (N_1 + N_2) + 2 \cdot \sqrt{N_1 + N_2} \cdot \sqrt{N_1 + N_2 - 4 \cdot N_3 \cdot (N_2 + N_1 \cdot N_3 + N_2 \cdot N_3)}}}{2 \cdot \sqrt{N_1 + N_2}} = 0$ $N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$

$R - \frac{C \cdot \sqrt{(A+B)} - \sqrt{2 \cdot C \cdot \sqrt{(A+B)} \cdot \sqrt{\left(C^2 - 4 \cdot N_u^2\right) \cdot (A+B) - 4 \cdot A \cdot C \cdot N_u} - \left[\left(C^2 - 4 \cdot N_u^2\right) \cdot (A+B) - 4 \cdot A \cdot C \cdot N_u\right]}}{2 \cdot \sqrt{(A+B)} \cdot C} = 0$ $N_1 - \frac{X}{o} = 0$ $N_2 - \frac{Y}{p} = 0$ $N_3 - \frac{Z}{q} = 0$

$R - \frac{q \cdot \sqrt{X \cdot p + Y \cdot o} - \sqrt{(2 \cdot Z - q) \cdot (2 \cdot Z + q) \cdot (X \cdot p + Y \cdot o) + 4 \cdot Y \cdot Z \cdot o \cdot q + 2 \cdot q \cdot \sqrt{X \cdot p + Y \cdot o} \cdot \sqrt{X \cdot p \cdot q^2 - 4 \cdot Y \cdot Z^2 \cdot o - 4 \cdot X \cdot Z^2 \cdot p + Y \cdot o \cdot q^2 - 4 \cdot Y \cdot Z \cdot o \cdot q}}}{2 \cdot q \cdot \sqrt{X \cdot p + Y \cdot o}} = 0$

4RST10CAB4R1



$N_1 = 1.75053$
$N_2 = 1.50839$
$N_3 = 0.30239$
$R = 0.43128$

Unit. $AB := 1$ **Given.** $N_1 := 1.75053$ $N_2 := 1.50839$ $N_3 := .30239$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

$AC := \frac{N_2}{N_1 + N_2}$ $EJ := \sqrt{AB^2 + AC^2}$

$AF := \frac{AC}{2}$ $EF := \frac{EJ - AB}{2}$

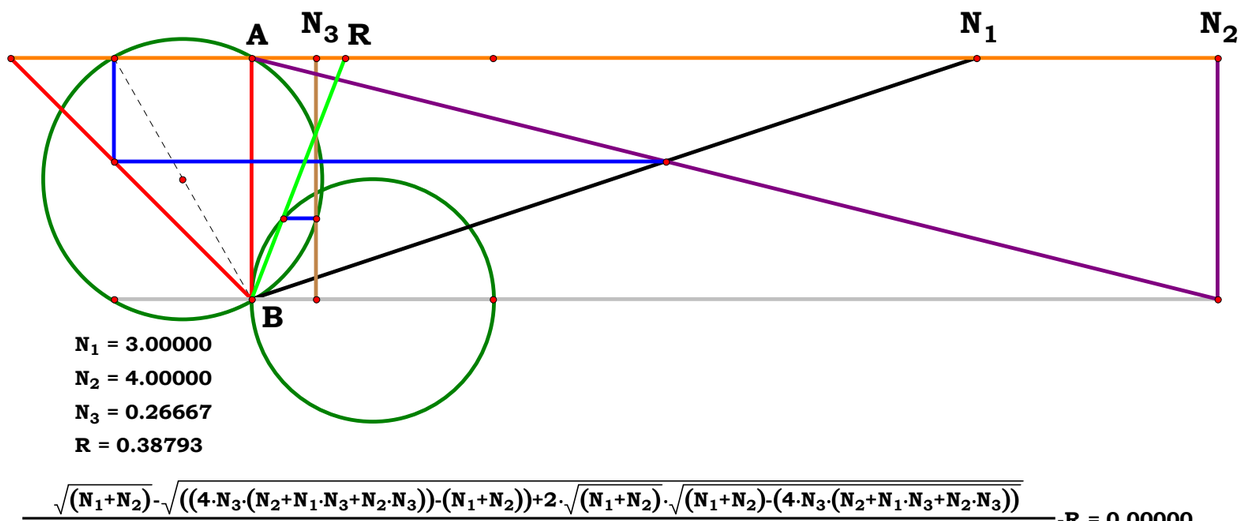
$GK := \frac{EJ}{2}$ $HK := AF + N_3$

$GH := \sqrt{GK^2 - HK^2}$ $ST := GK - (GH + EF)$

$BP := AB$ $BO := \frac{BP}{2}$

$OT := \sqrt{BO^2 - ST^2}$ $BT := BO - OT$

$R := \frac{BT}{ST}$ $R = 0.431244$



$N_1 = 3.00000$
$N_2 = 4.00000$
$N_3 = 0.26667$
$R = 0.38793$

$$\frac{\sqrt{(N_1+N_2)}-\sqrt{((4\cdot N_3\cdot(N_2+N_1\cdot N_3+N_2\cdot N_3))-(N_1+N_2))}+2\cdot\sqrt{(N_1+N_2)}\cdot\sqrt{(N_1+N_2)-(4\cdot N_3\cdot(N_2+N_1\cdot N_3+N_2\cdot N_3))}}{\sqrt{(N_1+N_2)}-\sqrt{(N_1+N_2)-(4\cdot N_3\cdot(N_2+N_1\cdot N_3+N_2\cdot N_3))}} - R = 0.00000$$

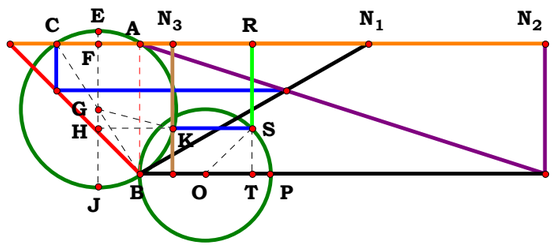
Definitions.

$$R - \frac{\sqrt{N_1+N_2}-\sqrt{4\cdot N_3\cdot(N_2+N_1\cdot N_3+N_2\cdot N_3)-(N_1+N_2)+2\cdot\sqrt{N_1+N_2}\cdot\sqrt{N_1+N_2-4\cdot N_3\cdot(N_2+N_1\cdot N_3+N_2\cdot N_3)}}}{\sqrt{N_1+N_2}-\sqrt{N_1+N_2-4\cdot N_3\cdot(N_2+N_1\cdot N_3+N_2\cdot N_3)}} = 0 \qquad N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0$$

$$R - \frac{C\cdot\sqrt{(A+B)}-\sqrt{2\cdot C\cdot\sqrt{(A+B)}\cdot\sqrt{\left(C^2-4\cdot N_u^2\right)\cdot(A+B)-4\cdot A\cdot C\cdot N_u}-\left[\left(C^2-4\cdot N_u^2\right)\cdot(A+B)-4\cdot A\cdot C\cdot N_u\right]}}{C\cdot\sqrt{(A+B)}-\sqrt{\left(C^2-4\cdot N_u^2\right)\cdot(A+B)-4\cdot A\cdot C\cdot N_u}} = 0 \qquad N_1 - \frac{X}{o} = 0 \quad N_2 - \frac{Y}{p} = 0 \quad N_3 - \frac{Z}{q} = 0$$

$$R - \frac{q\cdot\sqrt{X\cdot p+Y\cdot o}-\sqrt{4\cdot X\cdot Z^2\cdot p+4\cdot Y\cdot Z^2\cdot o-X\cdot p\cdot q^2-Y\cdot o\cdot q^2+2\cdot q\cdot\sqrt{X\cdot p+Y\cdot o}\cdot\sqrt{X\cdot p\cdot q^2-4\cdot Y\cdot Z^2\cdot o-4\cdot X\cdot Z^2\cdot p+Y\cdot o\cdot q^2-4\cdot Y\cdot Z\cdot o\cdot q}+4\cdot Y\cdot Z\cdot o\cdot q}}{q\cdot\sqrt{X\cdot p+Y\cdot o}-\sqrt{X\cdot p\cdot q^2-4\cdot Y\cdot Z^2\cdot o-4\cdot X\cdot Z^2\cdot p+Y\cdot o\cdot q^2-4\cdot Y\cdot Z\cdot o\cdot q}} = 0$$

4RST10CAB4R2



$N_1 = 1.75053$
$N_2 = 3.10654$
$N_3 = 0.25397$
$R = 0.85890$

Unit. $AB := 1$ Given. $N_1 := 1.75053$ $N_2 := 3.10654$ $N_3 := .25397$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

$AC := \frac{N_2}{N_1 + N_2}$ $EJ := \sqrt{AB^2 + AC^2}$

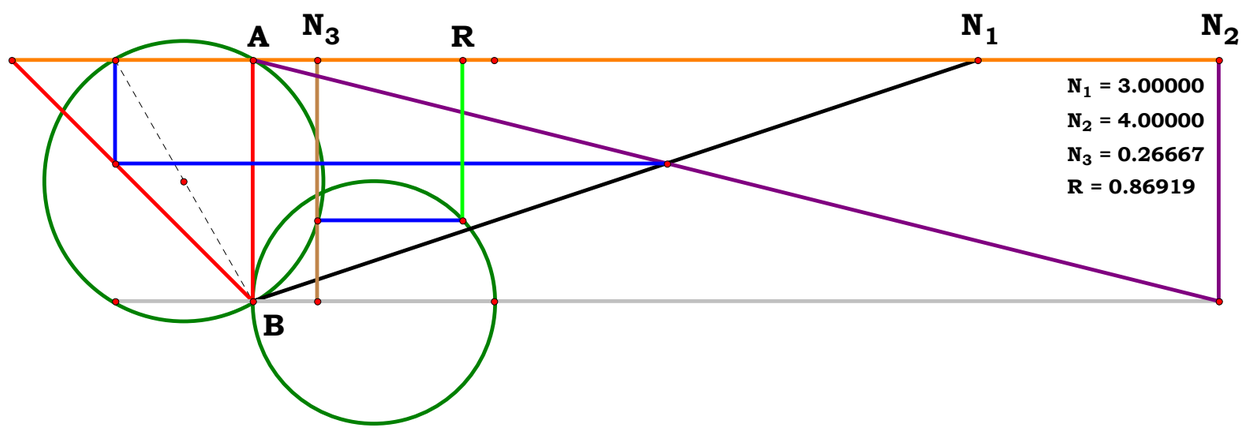
$AF := \frac{AC}{2}$ $EF := \frac{EJ - AB}{2}$

$GK := \frac{EJ}{2}$ $HK := AF + N_3$

$GH := \sqrt{GK^2 - HK^2}$ $ST := GK - (GH + EF)$

$BP := AB$ $BO := \frac{BP}{2}$

$OT := \sqrt{BO^2 - ST^2}$ $R := BO + OT$



$N_1 = 3.00000$
$N_2 = 4.00000$
$N_3 = 0.26667$
$R = 0.86919$

$R = 0.858888$

$$\frac{\sqrt{(N_1+N_2)}+\sqrt{((4\cdot N_3\cdot(N_2+N_1\cdot N_3+N_2\cdot N_3))-(N_1+N_2))}+2\cdot\sqrt{(N_1+N_2)}\cdot\sqrt{(N_1+N_2)-(4\cdot N_3\cdot(N_2+N_1\cdot N_3+N_2\cdot N_3))}}{2\cdot\sqrt{(N_1+N_2)}} - R = 0.00000$$

Definitions.

$$R - \frac{\sqrt{N_1+N_2}+\sqrt{4\cdot N_3\cdot\left(N_2+N_1\cdot N_3+N_2\cdot N_3\right)-\left(N_1+N_2\right)+2\cdot\sqrt{N_1+N_2}\cdot\sqrt{N_1+N_2-4\cdot N_3\cdot\left(N_2+N_1\cdot N_3+N_2\cdot N_3\right)}}}{2\cdot\sqrt{N_1+N_2}} = 0$$

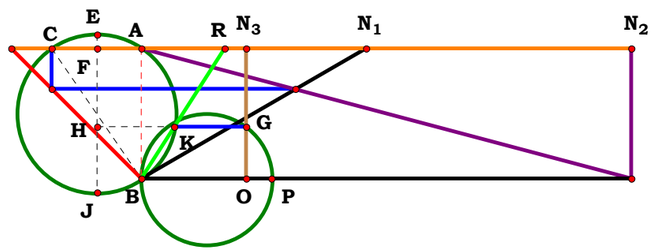
$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$

$$R - \frac{\sqrt{4\cdot A\cdot N_u{}^3+4\cdot B\cdot N_u{}^3+2\cdot C\cdot\sqrt{N_u\cdot(A+B)}\cdot\sqrt{N_u\cdot\left(A\cdot C^2+B\cdot C^2-4\cdot A\cdot N_u{}^2-4\cdot B\cdot N_u{}^2-4\cdot A\cdot C\cdot N_u\right)}-A\cdot C\cdot N_u\cdot\left(C-4\cdot N_u\right)-B\cdot C^2\cdot N_u}+C\cdot\sqrt{N_u\cdot(A+B)}}{2\cdot\sqrt{N_u\cdot(A+B)}\cdot C} = 0$$

$N_1 - \frac{X}{o} = 0$ $N_2 - \frac{Y}{p} = 0$ $N_3 - \frac{Z}{q} = 0$

$$R - \frac{\sqrt{4\cdot X\cdot Z^2\cdot p+4\cdot Y\cdot Z^2\cdot o-X\cdot p\cdot q^2-Y\cdot o\cdot q^2+2\cdot q\cdot\sqrt{X\cdot p+Y\cdot o}\cdot\sqrt{X\cdot p\cdot q^2-4\cdot Y\cdot Z^2\cdot o-4\cdot X\cdot Z^2\cdot p+Y\cdot o\cdot q^2-4\cdot Y\cdot Z\cdot o\cdot q}+4\cdot Y\cdot Z\cdot o\cdot q}+q\cdot\sqrt{X\cdot p+Y\cdot o}}{2\cdot q\cdot\sqrt{X\cdot p+Y\cdot o}} = 0$$

4RST10CAB4R3



$N_1 = 1.72148$
$N_2 = 3.75549$
$N_3 = 0.80606$
$R = 0.64320$

Unit. $AB := 1$ **Given.** $N_1 := 1.72148$ $N_2 := 3.75549$ $N_3 := .80606$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

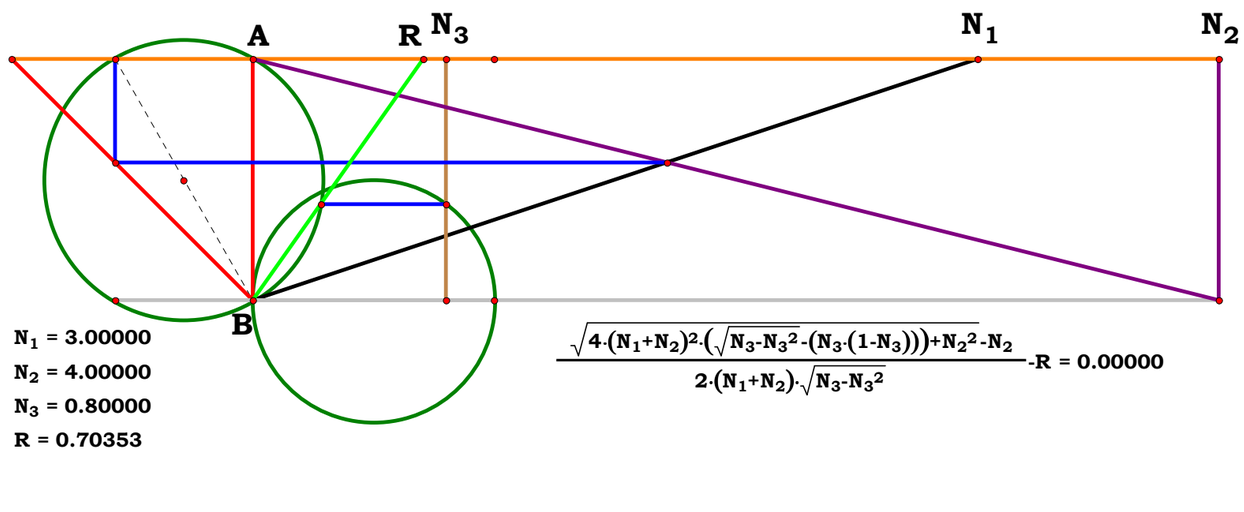
$AC := \frac{N_2}{N_1 + N_2}$ $EJ := \sqrt{AB^2 + AC^2}$

$AF := \frac{AC}{2}$ $EF := \frac{EJ - AB}{2}$

$BP := AB$ $GO := \sqrt{N_3 \cdot (BP - N_3)}$

$HJ := GO + EF$ $HK := \sqrt{HJ \cdot (EJ - HJ)}$

$R := \frac{HK - AF}{GO}$ $R = 0.643209$



$N_1 = 3.00000$
$N_2 = 4.00000$
$N_3 = 0.80000$
$R = 0.70353$

$\frac{\sqrt{4 \cdot (N_1+N_2)^2 \cdot \left(\sqrt{N_3-N_3^2} - (N_3 \cdot (1-N_3))\right) + N_2^2} - N_2}{2 \cdot (N_1+N_2) \cdot \sqrt{N_3-N_3^2}} - R = 0.00000$

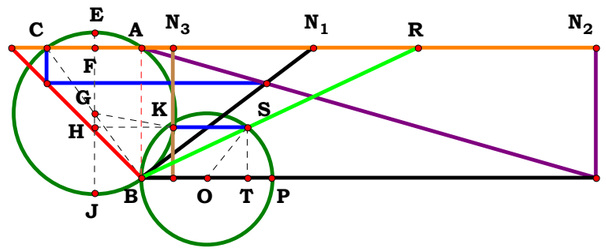
Definitions.

$R - \frac{\sqrt{4 \cdot (N_1 + N_2)^2 \cdot \left[\sqrt{N_3 - N_3^2} - N_3 \cdot (1 - N_3)\right] + N_2^2} - N_2}{2 \cdot (N_1 + N_2) \cdot \sqrt{N_3 - N_3^2}} = 0$ $N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$

$R - \frac{\sqrt{4 \cdot (A + B)^2 \cdot \left[N_u^2 - C \cdot N_u + C \cdot \sqrt{N_u \cdot (C - N_u)}\right] + A^2 \cdot C^2} - A \cdot C}{2 \cdot (A + B) \cdot \sqrt{N_u \cdot (C - N_u)}} = 0$ $N_1 - \frac{X}{o} = 0$ $N_2 - \frac{Y}{p} = 0$ $N_3 - \frac{Z}{q} = 0$

$R - \frac{\sqrt{4 \cdot q \cdot (X \cdot p + Y \cdot o)^2 \cdot \sqrt{Z \cdot q - Z^2} + 4 \cdot X \cdot Z \cdot p \cdot (Z - q) \cdot (X \cdot p + 2 \cdot Y \cdot o) + Y^2 \cdot o^2 \cdot (2 \cdot Z - q)^2} - Y \cdot o \cdot q}{2 \cdot (X \cdot p + Y \cdot o) \cdot \sqrt{Z \cdot q - Z^2}} = 0$

4RST10CAB4R4



$N_1 = 1.31467$
$N_2 = 3.48429$
$N_3 = 0.24428$
$R = 2.11761$

Unit. $AB := 1$ **Given.** $N_1 := 1.31467$ $N_2 := 3.48429$ $N_3 := .24428$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

$AC := \frac{N_2}{N_1 + N_2}$ $EJ := \sqrt{AB^2 + AC^2}$

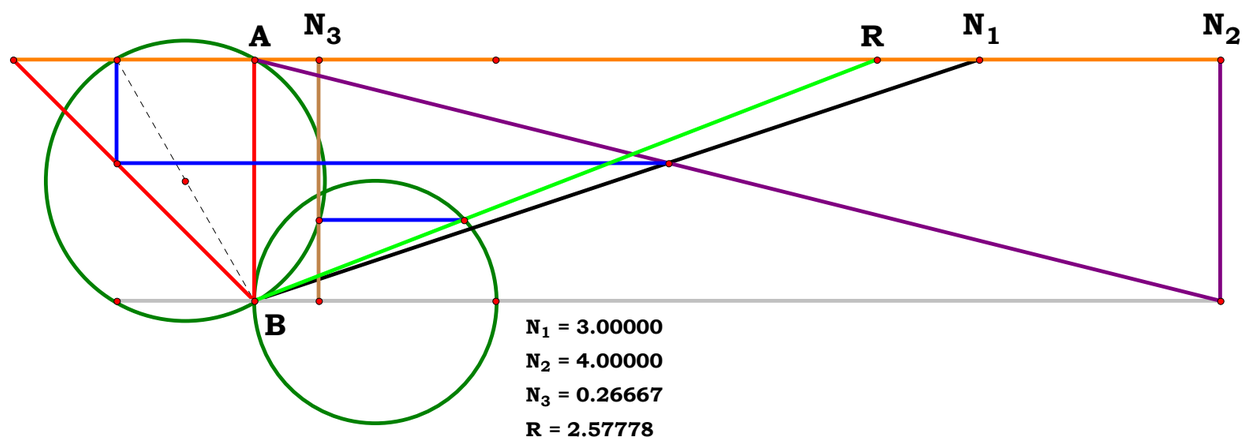
$AF := \frac{AC}{2}$ $EF := \frac{EJ - AB}{2}$

$GK := \frac{EJ}{2}$ $HK := AF + N_3$

$GH := \sqrt{GK^2 - HK^2}$ $ST := GK - (GH + EF)$

$BP := AB$ $BO := \frac{BP}{2}$

$OT := \sqrt{BO^2 - ST^2}$ $BT := BO + OT$



$N_1 = 3.00000$
$N_2 = 4.00000$
$N_3 = 0.26667$
$R = 2.57778$

$R := \frac{BT}{ST}$ $R = 2.117603$

$$\frac{\sqrt{(N_1+N_2)}+\sqrt{((4\cdot N_3\cdot(N_2+N_1\cdot N_3+N_2\cdot N_3))-(N_1+N_2))}+2\cdot\sqrt{(N_1+N_2)}\cdot\sqrt{(N_1+N_2)-(4\cdot N_3\cdot(N_2+N_1\cdot N_3+N_2\cdot N_3))}}{\sqrt{(N_1+N_2)}-\sqrt{(N_1+N_2)-(4\cdot N_3\cdot(N_2+N_1\cdot N_3+N_2\cdot N_3))}} - R = 0.00000$$

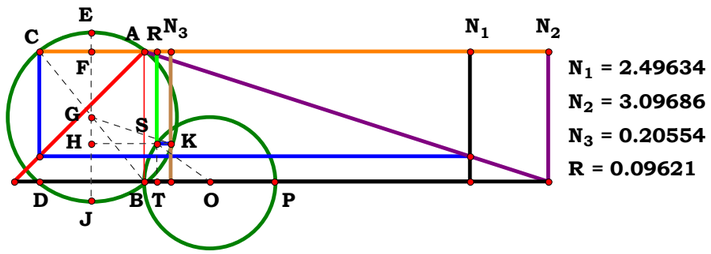
Definitions.

$$R - \frac{\sqrt{N_1 + N_2} + \sqrt{4\cdot N_3\cdot\left(N_2 + N_1\cdot N_3 + N_2\cdot N_3\right) - \left(N_1 + N_2\right)} + 2\cdot\sqrt{N_1 + N_2}\cdot\sqrt{N_1 + N_2 - 4\cdot N_3\cdot\left(N_2 + N_1\cdot N_3 + N_2\cdot N_3\right)}}{\sqrt{N_1 + N_2} - \sqrt{N_1 + N_2 - 4\cdot N_3\cdot\left(N_2 + N_1\cdot N_3 + N_2\cdot N_3\right)}} = 0 \qquad N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0$$

$$R - \frac{\sqrt{2\cdot C\cdot\sqrt{(A+B)}\cdot\sqrt{\left(C^2 - 4\cdot N_u^2\right)\cdot(A+B) - 4\cdot A\cdot C\cdot N_u} - \left[\left(C^2 - 4\cdot N_u^2\right)\cdot(A+B) - 4\cdot A\cdot C\cdot N_u\right]} + C\cdot\sqrt{(A+B)}}{C\cdot\sqrt{(A+B)} - \sqrt{\left(C^2 - 4\cdot N_u^2\right)\cdot(A+B) - 4\cdot A\cdot C\cdot N_u}} = 0 \qquad N_1 - \frac{X}{o} = 0 \quad N_2 - \frac{Y}{p} = 0 \quad N_3 - \frac{Z}{q} = 0$$

$$R - \frac{\sqrt{4\cdot X\cdot Z^2\cdot p + 4\cdot Y\cdot Z^2\cdot o - X\cdot p\cdot q^2 - Y\cdot o\cdot q^2 + 2\cdot q\cdot\sqrt{X\cdot p + Y\cdot o}\cdot\sqrt{X\cdot p\cdot q^2 - 4\cdot Y\cdot Z^2\cdot o - 4\cdot X\cdot Z^2\cdot p + Y\cdot o\cdot q^2 - 4\cdot Y\cdot Z\cdot o\cdot q}} + 4\cdot Y\cdot Z\cdot o\cdot q + q\cdot\sqrt{X\cdot p + Y\cdot o}}{q\cdot\sqrt{X\cdot p + Y\cdot o} - \sqrt{X\cdot p\cdot q^2 - 4\cdot Y\cdot Z^2\cdot o - 4\cdot X\cdot Z^2\cdot p + Y\cdot o\cdot q^2 - 4\cdot Y\cdot Z\cdot o\cdot q}} = 0$$

4RST10CAB5R0



$N_1 = 2.49634$
$N_2 = 3.09686$
$N_3 = 0.20554$
$R = 0.09621$

Unit. $AB := 1$ **Given.** $N_1 := 2.49634$ $N_2 := 3.09686$ $N_3 := .20554$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

$AC := \frac{N_1}{N_2}$ $EJ := \sqrt{AB^2 + AC^2}$

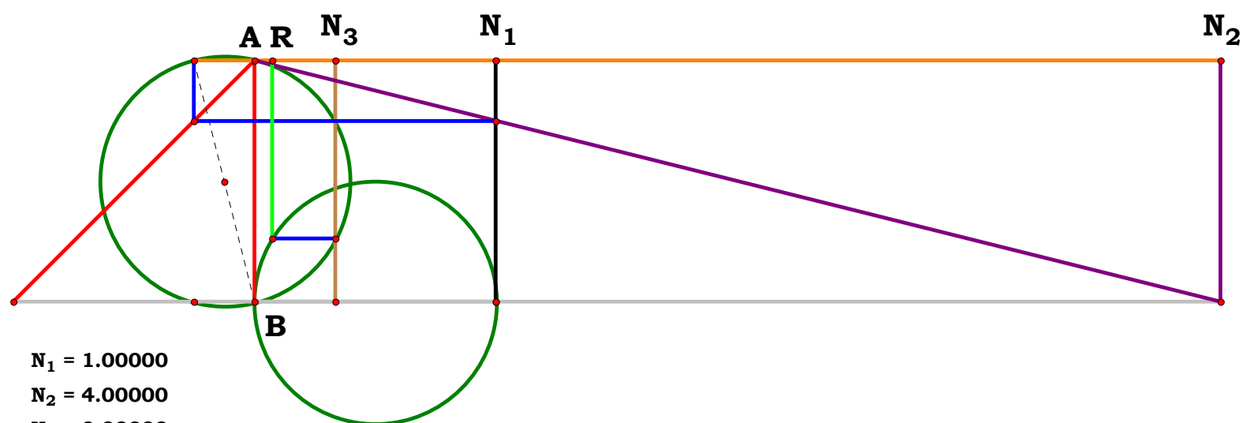
$AF := \frac{AC}{2}$ $EF := \frac{EJ - AB}{2}$

$GK := \frac{EJ}{2}$ $HK := AF + N_3$

$GH := \sqrt{GK^2 - HK^2}$ $ST := GK - (GH + EF)$

$BP := AB$ $BO := \frac{BP}{2}$

$OT := \sqrt{BO^2 - ST^2}$ $R := BO - OT$



$N_1 = 1.00000$
$N_2 = 4.00000$
$N_3 = 0.33333$
$R = 0.07556$

$R = 0.096218$

$$\frac{\sqrt{N_2} - \sqrt{((4 \cdot N_3 \cdot (N_1 + N_2 \cdot N_3)) - N_2) + 2 \cdot \sqrt{N_2} \cdot \sqrt{N_2 - (4 \cdot N_3 \cdot (N_1 + N_2 \cdot N_3))}}}{2 \cdot \sqrt{N_2}} - R = 0.00000$$

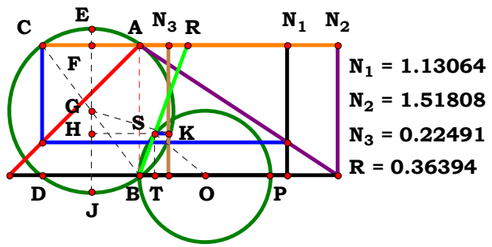
Definitions.

$$R - \frac{\sqrt{N_2} - \sqrt{4 \cdot N_3 \cdot (N_1 + N_2 \cdot N_3) - N_2 + 2 \cdot \sqrt{N_2} \cdot \sqrt{N_2 - 4 \cdot N_3 \cdot (N_1 + N_2 \cdot N_3)}}}{2 \cdot \sqrt{N_2}} = 0 \qquad N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0$$

$$R - \frac{C \cdot (A \cdot B)^{\frac{3}{4}} - \sqrt{\left[2 \cdot A \cdot B^{\frac{3}{2}} \cdot C \cdot \sqrt{A \cdot C^2 - 4 \cdot N_u \cdot (B \cdot C + A \cdot N_u)} - \left[A \cdot B \cdot \left(C^2 - 4 \cdot N_u^2\right) - 4 \cdot B^2 \cdot C \cdot N_u\right] \cdot \sqrt{A \cdot B}\right]}}{2 \cdot C \cdot (A \cdot B)^{\frac{3}{4}}} = 0 \qquad N_1 - \frac{X}{o} = 0 \quad N_2 - \frac{Y}{p} = 0 \quad N_3 - \frac{Z}{q} = 0$$

$$R - \frac{\sqrt{Y} \cdot q \cdot (o \cdot p)^{\frac{3}{4}} - \sqrt{p} \cdot \sqrt{4 \cdot Y \cdot Z^2 \cdot o \cdot \sqrt{o \cdot p} - Y \cdot o \cdot q^2 \cdot \sqrt{o \cdot p} + 4 \cdot X \cdot Z \cdot p \cdot q \cdot \sqrt{o \cdot p} + 2 \cdot \sqrt{Y} \cdot o \cdot \sqrt{p} \cdot q \cdot \sqrt{Y \cdot o \cdot q^2 - 4 \cdot X \cdot p \cdot Z \cdot q - 4 \cdot Y \cdot o \cdot Z^2}}}{2 \cdot \sqrt{Y} \cdot (o \cdot p)^{\frac{3}{4}} \cdot q} = 0$$

4RST10CAB5R1



Unit. $AB := 1$ Given. $N_1 := 1.13064$ $N_2 := 1.51808$ $N_3 := .22491$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

$AC := \frac{N_1}{N_2}$ $EJ := \sqrt{AB^2 + AC^2}$

$AF := \frac{AC}{2}$ $EF := \frac{EJ - AB}{2}$

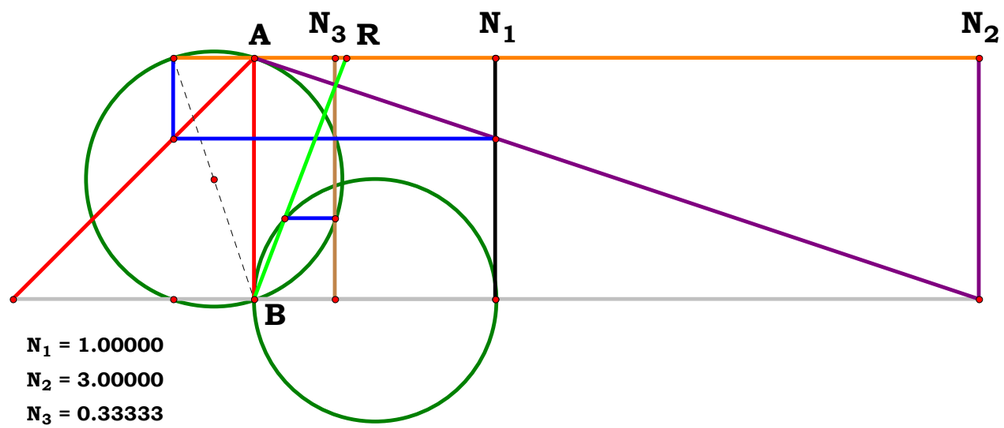
$GK := \frac{EJ}{2}$ $HK := AF + N_3$

$GH := \sqrt{GK^2 - HK^2}$ $ST := GK - (GH + EF)$

$BP := AB$ $BO := \frac{BP}{2}$

$OT := \sqrt{BO^2 - ST^2}$ $BT := BO - OT$

$R := \frac{BT}{ST}$ $R = 0.363945$



$$\frac{\sqrt{((4\cdot N_3\cdot(N_1+N_2\cdot N_3))-N_2)+2\cdot\sqrt{N_2}\cdot\sqrt{N_2-(4\cdot N_3\cdot(N_1+N_2\cdot N_3))}}-\sqrt{N_2}}{\sqrt{N_2-(4\cdot N_3\cdot(N_1+N_2\cdot N_3))}-\sqrt{N_2}}-R = 0.00000$$

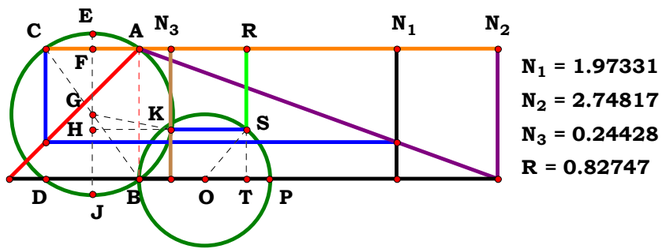
Definitions.

$$R - \frac{\sqrt{4\cdot N_3\cdot(N_1+N_2\cdot N_3)-N_2+2\cdot\sqrt{N_2}\cdot\sqrt{N_2-4\cdot N_3\cdot(N_1+N_2\cdot N_3)}}-\sqrt{N_2}}{\sqrt{N_2-4\cdot N_3\cdot(N_1+N_2\cdot N_3)}-\sqrt{N_2}} = 0 \qquad N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0$$

$$R - \frac{C\cdot(A\cdot B)^{\frac{3}{4}} - \sqrt{B}\cdot\sqrt{2\cdot A\cdot\sqrt{B}\cdot C\cdot\sqrt{A\cdot C^2 - 4\cdot N_u\cdot(B\cdot C + A\cdot N_u)}} - \left[A\cdot C^2 - 4\cdot N_u\cdot(B\cdot C + A\cdot N_u)\right]\cdot\sqrt{A\cdot B}}{(A\cdot B)^{\frac{1}{4}}\cdot\left[C\cdot\sqrt{A\cdot B} - \sqrt{B}\cdot\sqrt{A\cdot C^2 - 4\cdot N_u\cdot(B\cdot C + A\cdot N_u)}\right]} = 0 \qquad N_1 - \frac{X}{o} = 0 \quad N_2 - \frac{Y}{p} = 0 \quad N_3 - \frac{Z}{q} = 0$$

$$R - \frac{\sqrt{Y}\cdot q\cdot(o\cdot p)^{\frac{3}{4}} - \sqrt{p}\cdot\sqrt{4\cdot Y\cdot Z^2\cdot o\cdot\sqrt{o\cdot p} - Y\cdot o\cdot q^2\cdot\sqrt{o\cdot p} + 4\cdot X\cdot Z\cdot p\cdot q\cdot\sqrt{o\cdot p} + 2\cdot\sqrt{Y}\cdot o\cdot\sqrt{p}\cdot q\cdot\sqrt{Y\cdot o\cdot q^2 - 4\cdot X\cdot p\cdot Z\cdot q - 4\cdot Y\cdot o\cdot Z^2}}}{(o\cdot p)^{\frac{1}{4}}\cdot\left(\sqrt{Y}\cdot q\cdot\sqrt{o\cdot p} - \sqrt{p}\cdot\sqrt{Y\cdot o\cdot q^2 - 4\cdot X\cdot p\cdot Z\cdot q - 4\cdot Y\cdot o\cdot Z^2}\right)} = 0$$

4RST10CAB5R2



$N_1 = 1.97331$
$N_2 = 2.74817$
$N_3 = 0.24428$
$R = 0.82747$

Unit. $AB := 1$ Given. $N_1 := 1.97331$ $N_2 := 2.74817$ $N_3 := .24428$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

$AC := \frac{N_1}{N_2}$ $EJ := \sqrt{AB^2 + AC^2}$

$AF := \frac{AC}{2}$ $EF := \frac{EJ - AB}{2}$

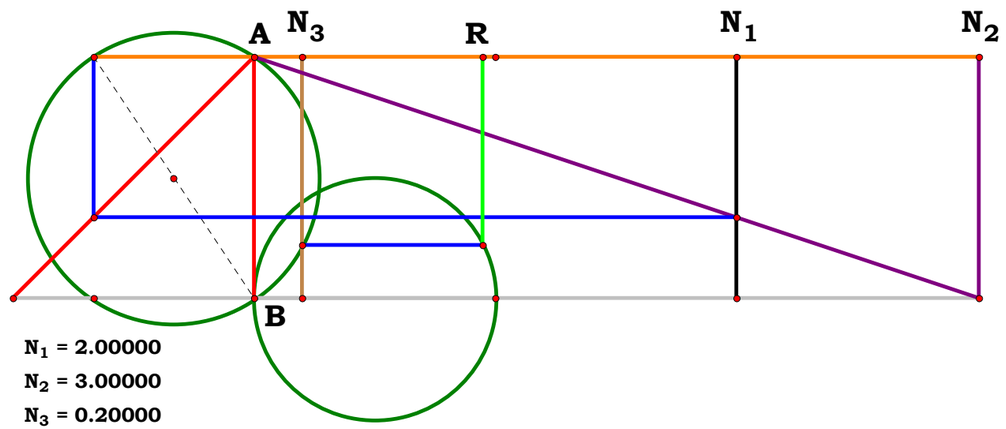
$GK := \frac{EJ}{2}$ $HK := AF + N_3$

$GH := \sqrt{GK^2 - HK^2}$ $ST := GK - (GH + EF)$

$BP := AB$ $BO := \frac{BP}{2}$

$OT := \sqrt{BO^2 - ST^2}$ $R := BO + OT$

$R = 0.827471$



$N_1 = 2.00000$
$N_2 = 3.00000$
$N_3 = 0.20000$
$R = 0.94746$

$$\frac{\sqrt{N_2}+\sqrt{((4\cdot N_3\cdot(N_1+N_2\cdot N_3))-N_2)+2\cdot\sqrt{N_2}\cdot\sqrt{N_2-(4\cdot N_3\cdot(N_1+N_2\cdot N_3))}}}{2\cdot\sqrt{N_2}} - R = 0.00000$$

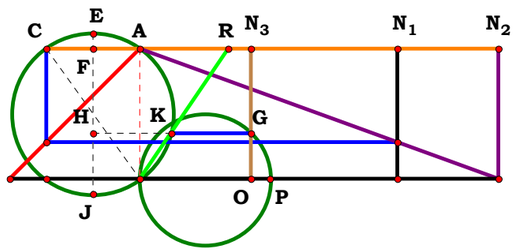
Definitions.

$$R - \frac{\sqrt{N_2}+\sqrt{4\cdot N_3\cdot(N_1+N_2\cdot N_3)-N_2+2\cdot\sqrt{N_2}\cdot\sqrt{N_2-4\cdot N_3\cdot(N_1+N_2\cdot N_3)}}}{2\cdot\sqrt{N_2}} = 0 \qquad N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0$$

$$R - \frac{\sqrt{B}\cdot\sqrt{\sqrt{N_u}\cdot\left[2\cdot A\cdot\sqrt{B}\cdot C\cdot\sqrt{N_u\cdot\left(A\cdot C^2-4\cdot B\cdot C\cdot N_u-4\cdot A\cdot N_u^2\right)}-\sqrt{A\cdot B}\cdot\sqrt{N_u}\cdot\left(A\cdot C^2-4\cdot B\cdot C\cdot N_u-4\cdot A\cdot N_u^2\right)\right]}+C\cdot\sqrt{N_u}\cdot(A\cdot B)^{\frac{3}{4}}}{2\cdot\sqrt{N_u}\cdot(A\cdot B)^{\frac{3}{4}}\cdot C} = 0 \qquad N_1 - \frac{X}{o} = 0 \quad N_2 - \frac{Y}{p} = 0 \quad N_3 - \frac{Z}{q} = 0$$

$$R - \frac{\sqrt{p}\cdot\sqrt{4\cdot Y\cdot Z^2\cdot o\cdot\sqrt{o\cdot p}-Y\cdot o\cdot q^2\cdot\sqrt{o\cdot p}+4\cdot X\cdot Z\cdot p\cdot q\cdot\sqrt{o\cdot p}+2\cdot\sqrt{Y}\cdot o\cdot\sqrt{p}\cdot q\cdot\sqrt{Y\cdot o\cdot q^2-4\cdot X\cdot p\cdot Z\cdot q-4\cdot Y\cdot o\cdot Z^2}}+\sqrt{Y}\cdot q\cdot(o\cdot p)^{\frac{3}{4}}}{2\cdot\sqrt{Y}\cdot(o\cdot p)^{\frac{3}{4}}\cdot q} = 0$$

4RST10CAB5R3



$N_1 = 1.97331$

$N_2 = 2.74817$

$N_3 = 0.85448$

$R = 0.67671$

Unit. $AB := 1$ Given. $N_1 := 1.97331$ $N_2 := 2.74817$ $N_3 := .85448$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

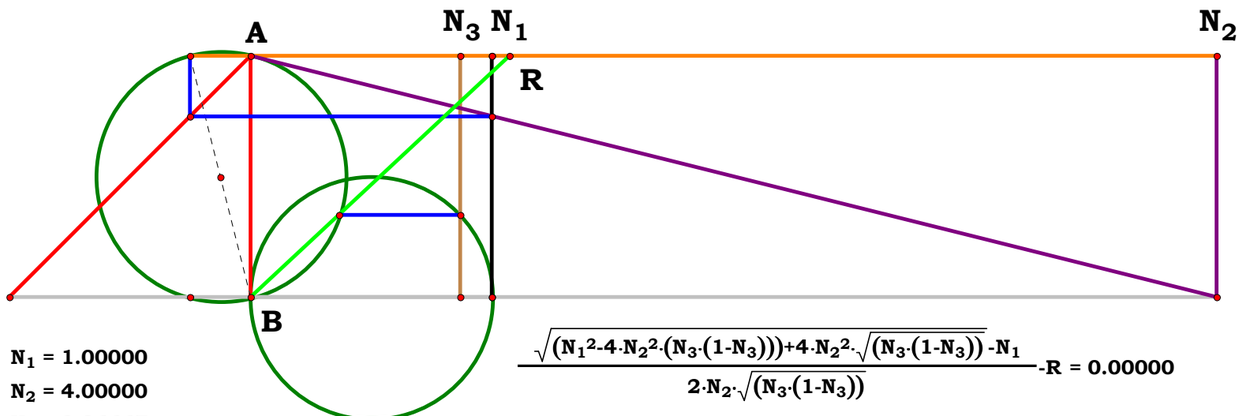
$AC := \frac{N_1}{N_2}$ $EJ := \sqrt{AB^2 + AC^2}$

$AF := \frac{AC}{2}$ $EF := \frac{EJ - AB}{2}$

$BP := AB$ $GO := \sqrt{N_3 \cdot (BP - N_3)}$

$HJ := GO + EF$ $HK := \sqrt{HJ \cdot (EJ - HJ)}$

$R := \frac{HK - AF}{GO}$ $R = 0.6767$



$N_1 = 1.00000$

$N_2 = 4.00000$

$N_3 = 0.86667$

$R = 1.07345$

$$\frac{\sqrt{(N_1^2 - 4 \cdot N_2^2 \cdot (N_3 \cdot (1 - N_3))) + 4 \cdot N_2^2 \cdot \sqrt{(N_3 \cdot (1 - N_3))}} - N_1}{2 \cdot N_2 \cdot \sqrt{(N_3 \cdot (1 - N_3))}} - R = 0.00000$$

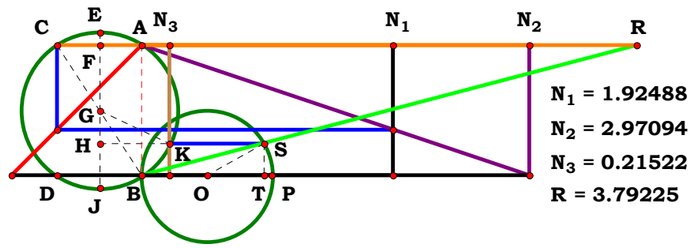
Definitions.

$$R - \frac{\sqrt{N_1^2 - 4 \cdot N_2^2 \cdot N_3 \cdot (1 - N_3) + 4 \cdot N_2^2 \cdot \sqrt{N_3 \cdot (1 - N_3)}} - N_1}{2 \cdot N_2 \cdot \sqrt{N_3 \cdot (1 - N_3)}} = 0 \qquad N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0$$

$$R - \frac{\sqrt{B^2 \cdot C^2 + 4 \cdot A^2 \cdot N_u^2 - 4 \cdot A^2 \cdot C \cdot N_u + 4 \cdot A^2 \cdot C \cdot \sqrt{N_u \cdot (C - N_u)}} - B \cdot C}{2 \cdot A \cdot \sqrt{N_u \cdot (C - N_u)}} = 0 \qquad N_1 - \frac{X}{o} = 0 \quad N_2 - \frac{Y}{p} = 0 \quad N_3 - \frac{Z}{q} = 0$$

$$R - \frac{\sqrt{4 \cdot Y^2 \cdot Z^2 \cdot o^2 + X^2 \cdot p^2 \cdot q^2 - 4 \cdot Y^2 \cdot Z \cdot o^2 \cdot q + 4 \cdot Y^2 \cdot o^2 \cdot q \cdot \sqrt{Z \cdot q - Z^2}} - X \cdot p \cdot q}{2 \cdot Y \cdot o \cdot \sqrt{Z \cdot q - Z^2}} = 0$$

4RST10CAB5R4



$N_1 = 1.92488$
$N_2 = 2.97094$
$N_3 = 0.21522$
$R = 3.79225$

Unit. $AB := 1$ Given. $N_1 := 1.92488$ $N_2 := 2.97094$ $N_3 := .21522$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

$AC := \frac{N_1}{N_2}$ $EJ := \sqrt{AB^2 + AC^2}$

$AF := \frac{AC}{2}$ $EF := \frac{EJ - AB}{2}$

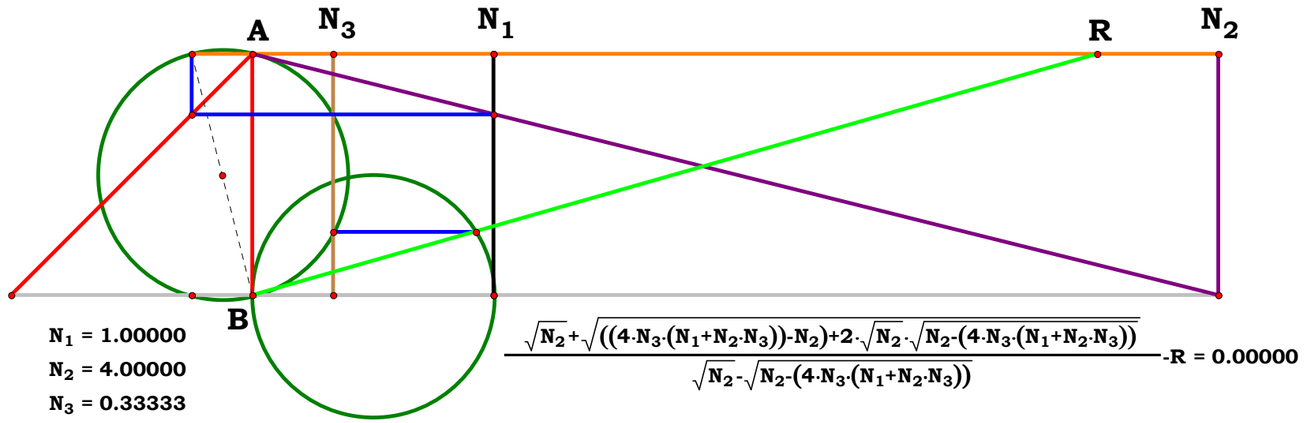
$GK := \frac{EJ}{2}$ $HK := AF + N_3$

$GH := \sqrt{GK^2 - HK^2}$ $ST := GK - (GH + EF)$

$BP := AB$ $BO := \frac{BP}{2}$

$OT := \sqrt{BO^2 - ST^2}$ $BT := BO + OT$

$R := \frac{BT}{ST}$ $R = 3.792343$



$N_1 = 1.00000$
$N_2 = 4.00000$
$N_3 = 0.33333$
$R = 3.49771$

$$\frac{\sqrt{N_2}+\sqrt{((4\cdot N_3\cdot(N_1+N_2\cdot N_3))-N_2)+2\cdot\sqrt{N_2}\cdot\sqrt{N_2-(4\cdot N_3\cdot(N_1+N_2\cdot N_3))}}}{\sqrt{N_2}-\sqrt{N_2-(4\cdot N_3\cdot(N_1+N_2\cdot N_3))}} - R = 0.00000$$

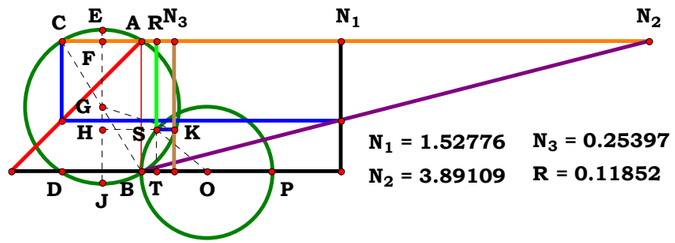
Definitions.

$$R - \frac{\sqrt{N_2}+\sqrt{4\cdot N_3\cdot(N_1+N_2\cdot N_3)-N_2+2\cdot\sqrt{N_2}\cdot\sqrt{N_2-4\cdot N_3\cdot(N_1+N_2\cdot N_3)}}}{\sqrt{N_2}-\sqrt{N_2-4\cdot N_3\cdot(N_1+N_2\cdot N_3)}} = 0 \qquad N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0$$

$$R - \frac{C\cdot(A\cdot B)^{\frac{3}{4}}+\sqrt{B}\cdot\sqrt{2\cdot A\cdot\sqrt{B}\cdot C\cdot\sqrt{A\cdot C^2-4\cdot N_u\cdot(B\cdot C+A\cdot N_u)}-\left[A\cdot C^2-4\cdot N_u\cdot(B\cdot C+A\cdot N_u)\right]}\cdot\sqrt{A\cdot B}}{\left[C\cdot\sqrt{A\cdot B}-\sqrt{B}\cdot\sqrt{A\cdot C^2-4\cdot N_u\cdot(B\cdot C+A\cdot N_u)}\right]\cdot(A\cdot B)^{\frac{1}{4}}} = 0 \qquad N_1 - \frac{X}{o} = 0 \quad N_2 - \frac{Y}{p} = 0 \quad N_3 - \frac{Z}{q} = 0$$

$$R - \frac{\sqrt{p}\cdot\sqrt{4\cdot Y\cdot Z^2\cdot o\cdot\sqrt{o\cdot p}-Y\cdot o\cdot q^2\cdot\sqrt{o\cdot p}+4\cdot X\cdot Z\cdot p\cdot q\cdot\sqrt{o\cdot p}+2\cdot\sqrt{Y}\cdot o\cdot\sqrt{p}\cdot q\cdot\sqrt{Y\cdot o\cdot q^2-4\cdot X\cdot p\cdot Z\cdot q-4\cdot Y\cdot o\cdot Z^2}}+\sqrt{Y}\cdot q\cdot(o\cdot p)^{\frac{3}{4}}}{(o\cdot p)^{\frac{1}{4}}\cdot\left(\sqrt{Y}\cdot q\cdot\sqrt{o\cdot p}-\sqrt{p}\cdot\sqrt{Y\cdot o\cdot q^2-4\cdot X\cdot p\cdot Z\cdot q-4\cdot Y\cdot o\cdot Z^2}\right)} = 0$$

4RST10CAB6R0



Unit. $AB := 1$ Given. $N_1 := 1.52776$ $N_2 := 3.89109$ $N_3 := .25397$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

$AC := \frac{N_2 - N_1}{N_2}$ $EJ := \sqrt{AB^2 + AC^2}$

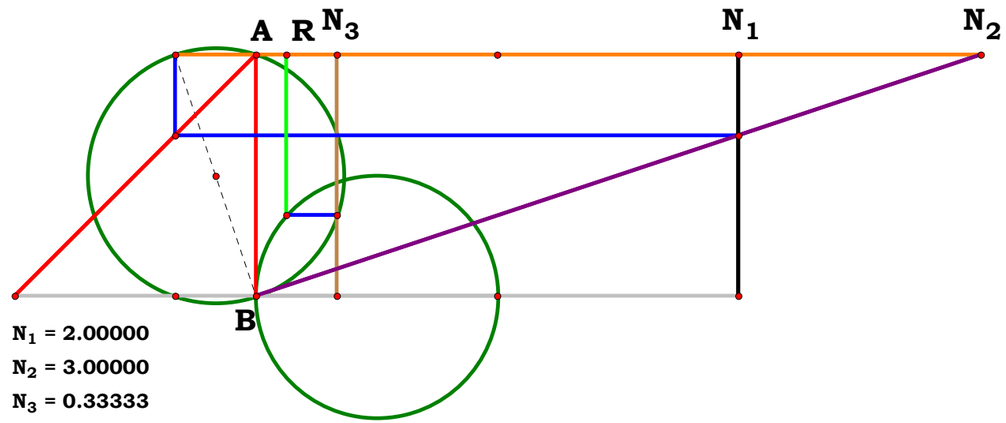
$AF := \frac{AC}{2}$ $EF := \frac{EJ - AB}{2}$

$GK := \frac{EJ}{2}$ $HK := AF + N_3$

$GH := \sqrt{GK^2 - HK^2}$ $ST := GK - (GH + EF)$

$BP := AB$ $BO := \frac{BP}{2}$

$OT := \sqrt{BO^2 - ST^2}$ $R := BO - OT$



$R = 0.118531$

$$\frac{\sqrt{N_2} - \sqrt{2 \cdot \sqrt{N_2} \cdot \sqrt{N_2 + (4 \cdot N_3 \cdot (N_1 - N_2 - N_2 \cdot N_3)) - (4 \cdot N_3 \cdot (N_1 - N_2 - N_2 \cdot N_3)) - N_2}}}{2 \cdot \sqrt{N_2}} - R = 0.00000$$

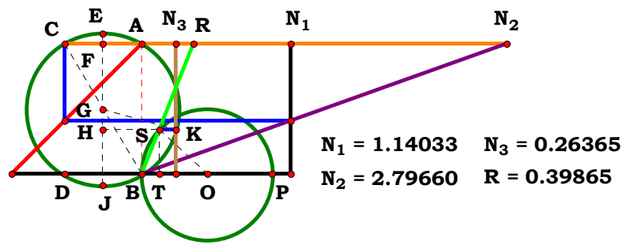
Definitions.

$$R - \frac{\sqrt{N_2} - \sqrt{2 \cdot \sqrt{N_2} \cdot \sqrt{N_2 + 4 \cdot N_3 \cdot (N_1 - N_2 - N_2 \cdot N_3)} - 4 \cdot N_3 \cdot (N_1 - N_2 - N_2 \cdot N_3) - N_2}}{2 \cdot \sqrt{N_2}} = 0 \qquad N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0$$

$$R - \frac{C \cdot (A \cdot B)^{\frac{3}{4}} - \sqrt{B} \cdot \sqrt{2 \cdot A \cdot \sqrt{B} \cdot C \cdot \sqrt{A \cdot C^2 - 4 \cdot N_u \cdot (A \cdot C - B \cdot C + A \cdot N_u)}} - \left[A \cdot C^2 - 4 \cdot N_u \cdot (A \cdot C - B \cdot C + A \cdot N_u)\right] \cdot \sqrt{A \cdot B}}{2 \cdot C \cdot (A \cdot B)^{\frac{3}{4}}} = 0 \qquad N_1 - \frac{X}{o} = 0 \quad N_2 - \frac{Y}{p} = 0 \quad N_3 - \frac{Z}{q} = 0$$

$$R - \frac{\sqrt{Y} \cdot q \cdot (o \cdot p)^{\frac{3}{4}} - \sqrt{p} \cdot \sqrt{4 \cdot Y \cdot Z^2 \cdot o \cdot \sqrt{o \cdot p} - Y \cdot o \cdot q^2 \cdot \sqrt{o \cdot p} - 4 \cdot X \cdot Z \cdot p \cdot q \cdot \sqrt{o \cdot p} + 4 \cdot Y \cdot Z \cdot o \cdot q \cdot \sqrt{o \cdot p} + 2 \cdot \sqrt{Y} \cdot o \cdot \sqrt{p} \cdot q \cdot \sqrt{Y \cdot o \cdot q^2 - 4 \cdot Y \cdot Z^2 \cdot o + 4 \cdot X \cdot Z \cdot p \cdot q - 4 \cdot Y \cdot Z \cdot o \cdot q}}}{2 \cdot \sqrt{Y} \cdot (o \cdot p)^{\frac{3}{4}} \cdot q} = 0$$

4RST10CAB6R1



Unit. $AB := 1$ Given. $N_1 := 1.14033$ $N_2 := 2.79660$ $N_3 := .26365$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

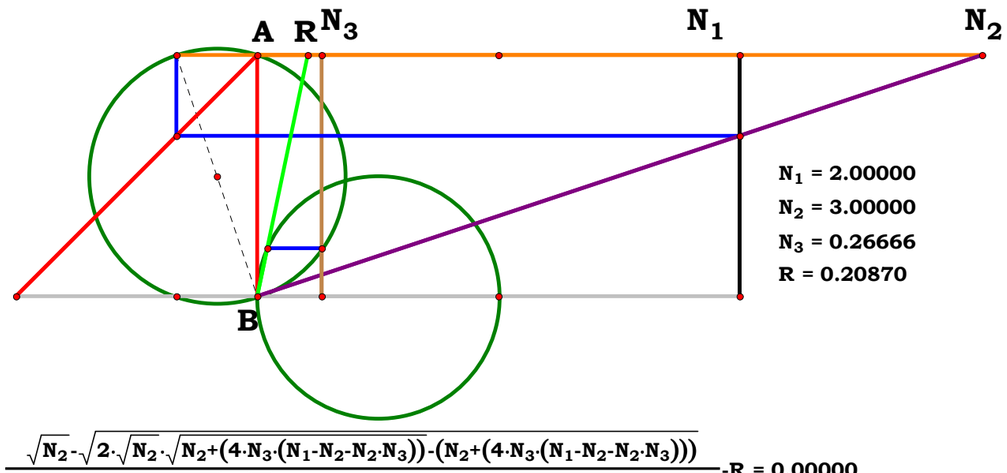
$AC := \frac{N_2 - N_1}{N_2}$ $EJ := \sqrt{AB^2 + AC^2}$ $AF := \frac{AC}{2}$

$EF := \frac{EJ - AB}{2}$ $GK := \frac{EJ}{2}$ $HK := AF + N_3$

$GH := \sqrt{GK^2 - HK^2}$ $ST := GK - (GH + EF)$

$BP := AB$ $BO := \frac{BP}{2}$ $OT := \sqrt{BO^2 - ST^2}$

$BT := BO - OT$ $R := \frac{BT}{ST}$ $R = 0.398638$



$$\frac{\sqrt{N_2}-\sqrt{2\cdot\sqrt{N_2}\cdot\sqrt{N_2+(4\cdot N_3\cdot(N_1-N_2-N_2\cdot N_3))}-(N_2+(4\cdot N_3\cdot(N_1-N_2-N_2\cdot N_3)))}}{\sqrt{N_2}-\sqrt{N_2+(4\cdot N_3\cdot(N_1-N_2-N_2\cdot N_3))}}-R = 0.00000$$

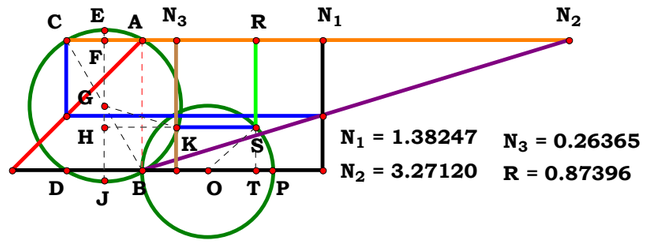
Definitions.

$$R - \frac{\sqrt{N_2} - \sqrt{2\cdot\sqrt{N_2}\cdot\sqrt{N_2 + 4\cdot N_3\cdot(N_1 - N_2 - N_2\cdot N_3)} - \left[N_2 + 4\cdot N_3\cdot(N_1 - N_2 - N_2\cdot N_3)\right]}}{\sqrt{N_2} - \sqrt{N_2 + 4\cdot N_3\cdot(N_1 - N_2 - N_2\cdot N_3)}} = 0 \qquad N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0$$

$$R - \frac{C\cdot(A\cdot B)^{\frac{3}{4}} - \sqrt{B}\cdot\sqrt{2\cdot A\cdot\sqrt{B}\cdot C\cdot\sqrt{A\cdot C^2 - 4\cdot N_u\cdot\left[C\cdot(A-B) + A\cdot N_u\right]}} - \left[A\cdot C^2 - 4\cdot N_u\cdot\left[C\cdot(A-B) + A\cdot N_u\right]\right]\cdot\sqrt{A\cdot B}}{(A\cdot B)^{\frac{1}{4}}\cdot\left[C\cdot\sqrt{A\cdot B} - \sqrt{B}\cdot\sqrt{A\cdot C^2 - 4\cdot N_u\cdot\left[C\cdot(A-B) + A\cdot N_u\right]}\right]} = 0 \qquad N_1 - \frac{X}{o} = 0 \quad N_2 - \frac{Y}{p} = 0 \quad N_3 - \frac{Z}{q} = 0$$

$$R - \frac{\sqrt{Y}\cdot q\cdot(o\cdot p)^{\frac{3}{4}} - \sqrt{p}\cdot\sqrt{4\cdot Y\cdot Z^2\cdot o\cdot\sqrt{o\cdot p} - Y\cdot o\cdot q^2\cdot\sqrt{o\cdot p} - 4\cdot X\cdot Z\cdot p\cdot q\cdot\sqrt{o\cdot p} + 4\cdot Y\cdot Z\cdot o\cdot q\cdot\sqrt{o\cdot p} + 2\cdot\sqrt{Y}\cdot o\cdot\sqrt{p}\cdot q\cdot\sqrt{Y\cdot o\cdot q^2 - 4\cdot Y\cdot Z^2\cdot o + 4\cdot X\cdot Z\cdot p\cdot q - 4\cdot Y\cdot Z\cdot o\cdot q}}}{\left(\sqrt{Y}\cdot q\cdot\sqrt{o\cdot p} - \sqrt{p}\cdot\sqrt{Y\cdot o\cdot q^2 - 4\cdot Y\cdot Z^2\cdot o + 4\cdot X\cdot Z\cdot p\cdot q - 4\cdot Y\cdot Z\cdot o\cdot q}\right)\cdot(o\cdot p)^{\frac{1}{4}}} = 0$$

4RST10CAB6R2



Unit. $AB := 1$ Given. $N_1 := 1.38247$ $N_2 := 3.27130$ $N_3 := .26365$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

$AC := \frac{N_2 - N_1}{N_2}$ $EJ := \sqrt{AB^2 + AC^2}$

$AF := \frac{AC}{2}$ $EF := \frac{EJ - AB}{2}$

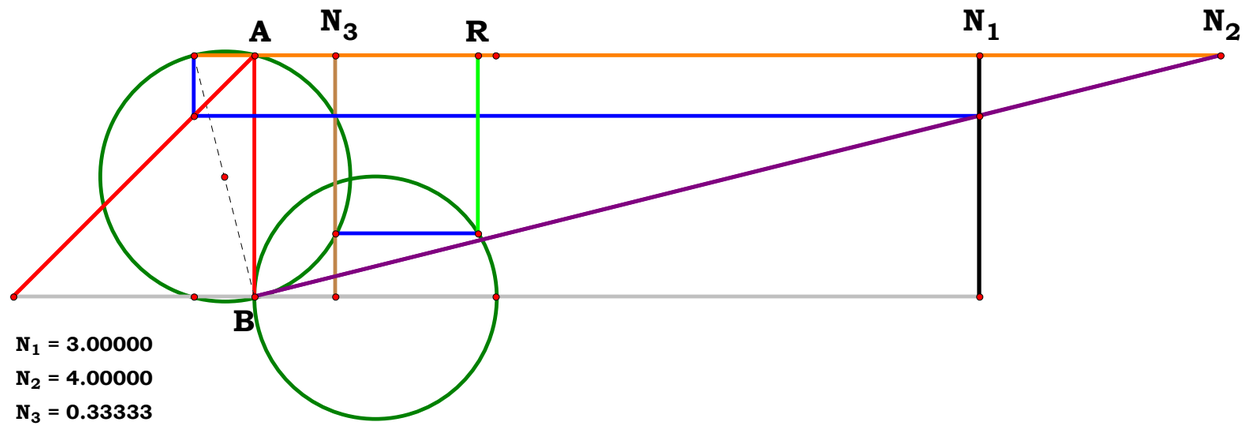
$GK := \frac{EJ}{2}$ $HK := AF + N_3$

$GH := \sqrt{GK^2 - HK^2}$ $ST := GK - (GH + EF)$

$BP := AB$ $BO := \frac{BP}{2}$

$OT := \sqrt{BO^2 - ST^2}$ $R := BO + OT$

$R = 0.873958$



$$\frac{\sqrt{N_2}+\sqrt{2\cdot\sqrt{N_2}\cdot\sqrt{N_2+(4\cdot N_3\cdot(N_1-N_2-N_2\cdot N_3))}-(4\cdot N_3\cdot(N_1-N_2-N_2\cdot N_3))}-N_2}{2\cdot\sqrt{N_2}} - R = 0.00000$$

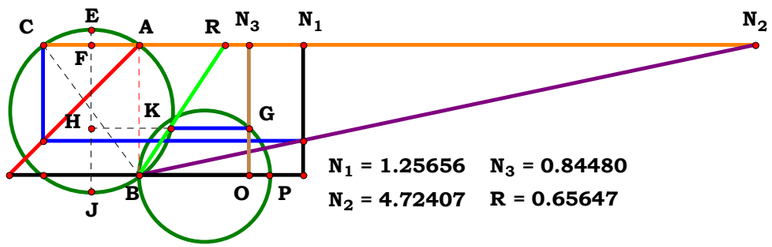
Definitions.

$$R - \frac{\sqrt{N_2}+\sqrt{2\cdot\sqrt{N_2}\cdot\sqrt{N_2+4\cdot N_3\cdot(N_1-N_2-N_2\cdot N_3)}-4\cdot N_3\cdot(N_1-N_2-N_2\cdot N_3)}-N_2}{2\cdot\sqrt{N_2}} = 0 \qquad N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0$$

$$R - \frac{C\cdot(A\cdot B)^{\frac{3}{4}}+\sqrt{B}\cdot\sqrt{2\cdot A\cdot\sqrt{B}\cdot C\cdot\sqrt{A\cdot C^2-4\cdot N_u\cdot[C\cdot(A-B)+A\cdot N_u]}-[A\cdot C^2-4\cdot N_u\cdot[C\cdot(A-B)+A\cdot N_u]]\cdot\sqrt{A\cdot B}}}{2\cdot C\cdot(A\cdot B)^{\frac{3}{4}}} = 0 \qquad N_1 - \frac{X}{o} = 0 \quad N_2 - \frac{Y}{p} = 0 \quad N_3 - \frac{Z}{q} = 0$$

$$R - \frac{\sqrt{p}\cdot\sqrt{4\cdot Y\cdot Z^2\cdot o\cdot\sqrt{o\cdot p}-Y\cdot o\cdot q^2\cdot\sqrt{o\cdot p}-4\cdot X\cdot Z\cdot p\cdot q\cdot\sqrt{o\cdot p}+4\cdot Y\cdot Z\cdot o\cdot q\cdot\sqrt{o\cdot p}+2\cdot\sqrt{Y}\cdot o\cdot\sqrt{p}\cdot q\cdot\sqrt{Y\cdot o\cdot q^2-4\cdot Y\cdot Z^2\cdot o+4\cdot X\cdot Z\cdot p\cdot q-4\cdot Y\cdot Z\cdot o\cdot q}}+\sqrt{Y}\cdot q\cdot(o\cdot p)^{\frac{3}{4}}}{2\cdot\sqrt{Y}\cdot(o\cdot p)^{\frac{3}{4}}\cdot q} = 0$$

4RST10CAB6R3



Unit. $AB := 1$ Given. $N_1 := 1.25656$ $N_2 := 4.72407$ $N_3 := .84480$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

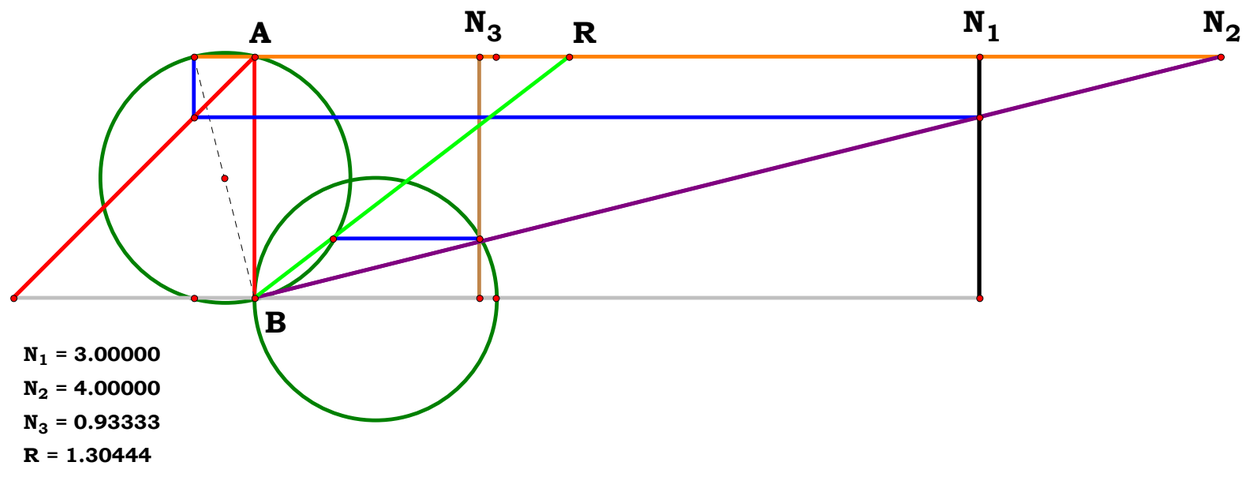
$AC := \frac{N_2 - N_1}{N_2}$ $EJ := \sqrt{AB^2 + AC^2}$

$AF := \frac{AC}{2}$ $EF := \frac{EJ - AB}{2}$

$BP := AB$ $GO := \sqrt{N_3 \cdot (BP - N_3)}$

$HJ := GO + EF$ $HK := \sqrt{HJ \cdot (EJ - HJ)}$

$R := \frac{HK - AF}{GO}$ $R = 0.656473$



$$\frac{(N_1-N_2)+\sqrt{(4\cdot N_2^2\cdot\sqrt{(N_3\cdot(1-N_3))}-4\cdot N_2^2\cdot(N_3\cdot(1-N_3)))+(N_1-N_2)^2}}{2\cdot N_2\cdot\sqrt{(N_3\cdot(1-N_3))}}-R = 0.00000$$

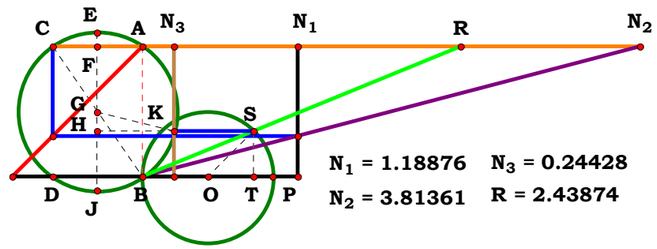
Definitions.

$$R - \frac{(N_1 - N_2) + \sqrt{4\cdot N_2^2\cdot\sqrt{N_3\cdot(1-N_3)} - 4\cdot N_2^2\cdot N_3\cdot(1-N_3) + (N_1-N_2)^2}}{2\cdot N_2\cdot\sqrt{N_3\cdot(1-N_3)}} = 0 \qquad N_1 - \frac{N_u}{A} = 0 \quad N_2 - \frac{N_u}{B} = 0 \quad N_3 - \frac{N_u}{C} = 0$$

$$R - \frac{\sqrt{C^2\cdot(A^2+B^2-2\cdot A\cdot B) - 4\cdot A^2\cdot\left(C\cdot N_u - C\cdot\sqrt{C\cdot N_u - N_u^2} - N_u^2\right)} - C\cdot(A-B)}{2\cdot A\cdot\sqrt{N_u\cdot(C-N_u)}} = 0 \qquad N_1 - \frac{X}{o} = 0 \quad N_2 - \frac{Y}{p} = 0 \quad N_3 - \frac{Z}{q} = 0$$

$$R - \frac{\sqrt{4\cdot Y^2\cdot Z^2\cdot o^2 + X^2\cdot p^2\cdot q^2 + Y^2\cdot o^2\cdot q^2 - 4\cdot Y^2\cdot Z\cdot o^2\cdot q + 4\cdot Y^2\cdot o^2\cdot q\cdot\sqrt{Z\cdot q - Z^2} - 2\cdot X\cdot Y\cdot o\cdot p\cdot q^2} + X\cdot p\cdot q - Y\cdot o\cdot q}{2\cdot Y\cdot o\cdot\sqrt{Z\cdot q - Z^2}} = 0$$

4RST10CAB6R4



$N_1 = 1.18876$ $N_3 = 0.24428$
$N_2 = 3.81361$ $R = 2.43874$

Unit. $AB := 1$ Given. $N_1 := 1.18876$ $N_2 := 3.81361$ $N_3 := .24428$

$N_u := 3$ $A := \frac{N_u}{N_1}$ $B := \frac{N_u}{N_2}$ $C := \frac{N_u}{N_3}$

$X := 20$ $Y := 19$ $Z := 18$ $o := \frac{X}{N_1}$ $p := \frac{Y}{N_2}$ $q := \frac{Z}{N_3}$

Descriptions.

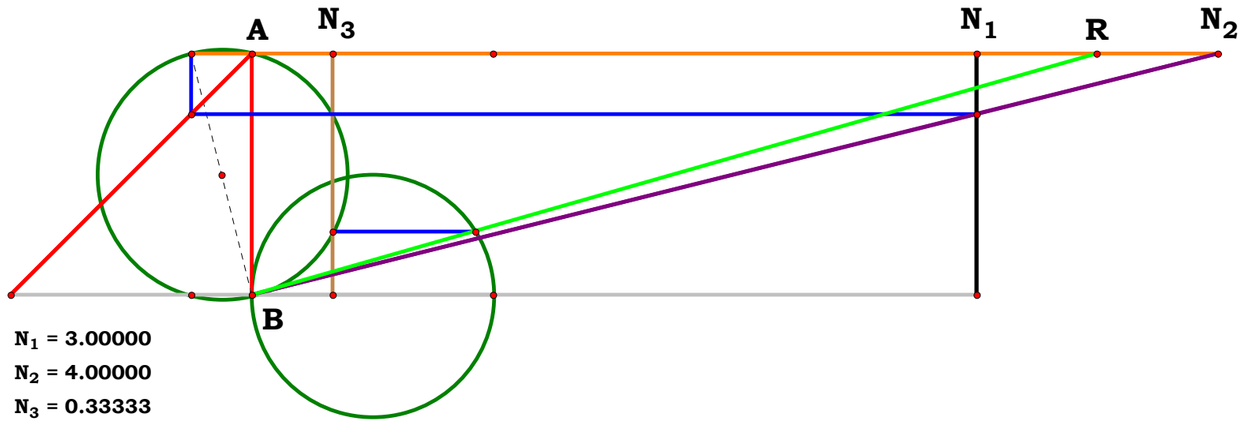
$AC := \frac{N_2 - N_1}{N_2}$ $EJ := \sqrt{AB^2 + AC^2}$ $AF := \frac{AC}{2}$

$EF := \frac{EJ - AB}{2}$ $GK := \frac{EJ}{2}$ $HK := AF + N_3$

$GH := \sqrt{GK^2 - HK^2}$ $ST := GK - (GH + EF)$

$BP := AB$ $BO := \frac{BP}{2}$ $OT := \sqrt{BO^2 - ST^2}$

$BT := BO + OT$ $R := \frac{BT}{ST}$ $R = 2.438738$



$N_1 = 3.00000$
$N_2 = 4.00000$
$N_3 = 0.33333$
$R = 3.49771$

$$\frac{\sqrt{N_2}+\sqrt{2\cdot\sqrt{N_2}\cdot\sqrt{N_2+(4\cdot N_3\cdot(N_1-N_2-N_2\cdot N_3))}-(4\cdot N_3\cdot(N_1-N_2-N_2\cdot N_3))-N_2}}{\sqrt{N_2}-\sqrt{N_2+(4\cdot N_3\cdot(N_1-N_2-N_2\cdot N_3))}} - R = 0.00000$$

Definitions.

$$R - \frac{\sqrt{N_2} + \sqrt{2\cdot\sqrt{N_2}\cdot\sqrt{N_2 + 4\cdot N_3\cdot(N_1 - N_2 - N_2\cdot N_3)} - 4\cdot N_3\cdot(N_1 - N_2 - N_2\cdot N_3) - N_2}}{\sqrt{N_2} - \sqrt{N_2 + 4\cdot N_3\cdot(N_1 - N_2 - N_2\cdot N_3)}} = 0$$

$N_1 - \frac{N_u}{A} = 0$ $N_2 - \frac{N_u}{B} = 0$ $N_3 - \frac{N_u}{C} = 0$

$$R - \frac{C\cdot(A\cdot B)^{\frac{3}{4}} + \sqrt{B}\cdot\sqrt{2\cdot A\cdot\sqrt{B}\cdot C\cdot\sqrt{A\cdot C^2 - 4\cdot N_u\cdot[C\cdot(A-B)+A\cdot N_u]}} - [A\cdot C^2 - 4\cdot N_u\cdot[C\cdot(A-B)+A\cdot N_u]]\cdot\sqrt{A\cdot B}}{(A\cdot B)^{\frac{1}{4}}\cdot\left[C\cdot\sqrt{A\cdot B} - \sqrt{B}\cdot\sqrt{A\cdot C^2 - 4\cdot N_u\cdot[C\cdot(A-B)+A\cdot N_u]}\right]} = 0$$

$N_1 - \frac{X}{o} = 0$ $N_2 - \frac{Y}{p} = 0$ $N_3 - \frac{Z}{q} = 0$

$$R - \frac{\sqrt{p}\cdot\sqrt{4\cdot Y\cdot Z^2\cdot o\cdot\sqrt{o\cdot p} - Y\cdot o\cdot q^2\cdot\sqrt{o\cdot p} - 4\cdot X\cdot Z\cdot p\cdot q\cdot\sqrt{o\cdot p} + 4\cdot Y\cdot Z\cdot o\cdot q\cdot\sqrt{o\cdot p} + 2\cdot\sqrt{Y}\cdot o\cdot\sqrt{p}\cdot q\cdot\sqrt{Y\cdot o\cdot q^2 - 4\cdot Y\cdot Z^2\cdot o + 4\cdot X\cdot Z\cdot p\cdot q - 4\cdot Y\cdot Z\cdot o\cdot q}} + \sqrt{Y}\cdot q\cdot(o\cdot p)^{\frac{3}{4}}}{(o\cdot p)^{\frac{1}{4}}\cdot\left(\sqrt{Y}\cdot q\cdot\sqrt{o\cdot p} - \sqrt{p}\cdot\sqrt{Y\cdot o\cdot q^2 - 4\cdot Y\cdot Z^2\cdot o + 4\cdot X\cdot Z\cdot p\cdot q - 4\cdot Y\cdot Z\cdot o\cdot q}\right)} = 0$$